National Study
on
Meeting Basic Learning Needs
and
Enhancing Learning Achievement of Children in Primary Education

(Sponsored by Unesco, PROAP, Bangkok)

REPORT

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FOREWORD

Meeting the basic learning needs of primary school children is one of the top priority areas not only in India but also at the international level. No doubt, concerted efforts have been made in this direction all over the world, still a lot needs to be done for reaching minimum essential educational facilities to every child and also creating a conducive learning environment for participation so as to help him/her acquire the minimum knowledge, skills, and values required to live a meaningful life as an adult.

NCERT as an apex educational body in India has been engaged in the task of improving the quality of school education through a variety of activities undertaken by its various constituents. This study gave us an opportunity for taking a critical look at our attempts both at the central and state levels in incorporating and implementing the policy enunciations related to the U.E.E

I congratulate the project team viz. Prof. N.K. Ambasht, Mrs. Shukla Bhattacharya, Dr. K.K. Vashisht, Dr. Ved Prakash and Dr. (Mrs.) Daljit Gupta for completing the assignment within the specified time. All of them have put in real hard work on the study. I put on record my appreciation of the efforts made by Dr. Daljit Gupta, Coordinator in handling the work on the project very efficiently right from day one to the day the report took its present shape.

I hope the contents of the report will be of great value in identifying the thrust areas in primary education that need unqualified attention for attainment of the goal of Education For All by 2000.

R. Muralidharan
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PREFACE

The National Study sponsored by Unesco, Bangkok was designed to be completed in two phases spread over approximately six months. The first phase aimed at finding out the extent to which the existing system of education in India is meeting the Basic Learning Needs of the children in primary education. To achieve this objective, curricula developed at the National and State levels for primary stage were analysed vis-a-vis the Minimum Levels of Learning laid down, the attainment of which by children is expected to meet their learning needs. The media to attain these MLLs i.e. the content, transactional strategies and evaluation approach/techniques recommended in the documents on curricula were also analysed. An indepth study of the various innovative programmes trying to experiment with a variety of approaches to expand the opportunities of not only access to education but also for enhancing the learning achievement, also formed part of the first phase. The Draft Report based on the above work was completed by January, 1993.

In the second phase a 3 - day National Workshop was organised at Delhi from Feb. 15 to 17, 1993. Nineteen experts from various organisations participated in the workshop. The main objectives of the workshop were to discuss and finalise the draft report, and, in the light of its findings suggest a framework for enhancing the learning achievement of children in primary education. Modifications suggested by the experts have been incorporated in the final report. Suggestions for Framework for Enhancing Learning Achievement of Children have been expanded and included as Chapter 5 of the Report.

The project team acknowledges with thanks the contributions made by the experts in giving final shape to the report. The team is also grateful to Prof. R. Muralidharan Head, DPSEE, NCERT, for providing guidance at every step of the study. The team offers their sincere thanks to the authorities in NCERT for giving them the opportunity to work on the study. The team also gratefully acknowledges the finacnial grant provided by UNESCO Regional Office for Asia and Pacific, Bangkok for carrying out this study in India.

Daljit Gupta
Project Coordinator

ACRONYMS

AIEP	Area Intensive Education Project
APPEP	Andhra Pradesh Primary Education Project
BEP	Bihar Education Project
CAPE	Comprehensive Access to Primary Education
CML	Children's Media Laboratory
DACEP	Developmental Activities in Community Education Project
DIETs	District Institutes of Education and Training
DPSEE	Department of Pre-School & Elementary Education
ECE	Early Childhood Education
ECCE	Early Childhood Care and Education
EVS I	Environmental Studies (Social Studies)
EVS II	Environmental Studies (Science)
HP	Himachal Pradesh
MLL	Minimum Levels of Learning
MLO	Minimum Learning Outcomes
MP	Madhya Pradesh
NCERT	National Council of Educational Research & Training
NFE	Non-formal Education
NHEES	Nutrition, Health Education and Environmental Sanitation

NPE	National Policy on Education
OB	Operation Blackboard
POA	Programme of Action
PECR	Primary Education Curriculum Renewal
PIED	Project Integrated Education of Disabled
UN	United Nations
PHC	Primary Health Centre
UP	Uttar Pradesh
UT	Union Territory
UEE	Universalisation of Elementary Education

CONTENTS

Foreword
Preface
Acronyms
1. Introduction 1
1.1 Background 1
1.2 Objectives 2
1.3 Scope and Delimitation of the Study 2
1.4 Constraints 4
1.5 Key Terms 4

2. Concept of Basic Learning Needs -Indian Perspective 7
Introduction 7
2.1 Meeting the Basic Learning Needs 9
2.2 Defining the Minimum Levels of Learning 16
2.3 Implementation of Minimum Levels of Learning 19
2.4 The Present Study and Minimum Levels of Learning 21

3. Basic Learning Needs-Reflections in curricula 22
3.1 Methodology 23
3.1.1 Sample 25
3.1.2 Analysis of Curricula 26
3.2 Formal System of Education 27
3.2.1 Language 27
3.2.2 Mathematics 31
3.2.3 Environmental Studies I & II 35

3.2.4 Work Experience 41
3.2.5 Art Education
3.2.6 Health and Physical Education 49
3.3 Non-formal Education System 57

4. Current Innovative Practices For Enhancement of Learning Achievement 63
4.1 Introduction 63
4.2 Innovative Programmes-Fore-runners 65
4.2.1 Concerns, Trends and Issues 67
4.2.2 Achievements 69
4.3 Innovative Practices - Current 70

5. Framework For Enhancing Learning Achievement of Children in Primary education 77
5.1 Findings of Analysis of Curricula 77
5.2 Basic Considerations for the Framework for Enhancing Learning Achievement 79
5.3 Developing Framework 80
5.3.1 The Present Situation 80
5.3.2 The Framework : Thrust Areas 81
5.3.3 Paradigm for enhancing Learner's Achievement 81
5.5.4 Curriculum Renewal 82
5.3.5 Teacher Preparation 82
5.3.6 Development of Instructional Material for Teachers and Learners 84
5.3.7 Evaluation Approach 86
5.3.8 Monitoring System 88
5.3.9 Community Support 89
5.3.10 Educational Research 89
5.4 Some Suggestions 91

Appendices

Appendix I 93
Appendix II 95
Appendix III 103
Appendix IV 109
Appendix V 123
Appendix VI 129
Appendix VII A 134
Appendix VII B 142
Appendix VIII A 146
Appendix VIII B 153

Refrences 183

CHAPTER I

INTRODUCTION

1.1 Background

The World Conference on Education For All, held at Jomtien, Thailand from March 5 to 9, 1990 once again reiterated that Basic education is a fundamental right for all people of all ages throughout the world. The participants highlighted the fact that it is only education that can ensure a better world in terms of safe environment, healthier people (physically, and emotionally), self-reliant development through acquiring scientific and technological literacy. The world conference also acknowledged that the scope of basic learning needs in the existing systems of education and the ways to meet them vary in different countries and cultures, and inevitably, change with the passage of time.

Hence the conference proclaimed that the main purpose of Education For All (EFA) is 'Meeting Basic Learning Needs', of every person - child, youth and adult and allout efforts be made by every country to meet these needs by the year 2000.

To find out the existing status of the scope of the Basic Learning Needs and the extent to which they are being taken care of through the System of Education in India, Unesco, Bangkok has sponsored a study entitled 'Basic Learning Nees and Enhancing Learning Achievement of Children in Primary Education'.

1.2 Objectives:

The major objectives of the study are to analyse/prepare-

- relevance and appropriateness of current primary education curricula, contents, instructional strategies and methods, and evaluation techniques to meet basic learning needs of children.
- current innovative programmes, materials and methods with a view to ascertain as to what, in what ways and to what extent they contribute towards meeting basic learning needs of primary school children and enhancing their learning achievement.
- a framework for effectively incorporating into primary education curricula, contents, methods and assesment schemes which contribute to meet the basic learning needs and enhancing learning achievement of primary school children.

National Council of Educational Research and Training, being an apex body working for the development of education in India has been called upon to undertake the study.

1.3 Scope and Delimitation of Study

The focus of the study is on the analysis of the current curricula, content, teaching-learning strategies and evaluation techniques adopted to meet the laid down basic

learning needs of primary school children. The analysis covers the curricula, content, teaching-learning strategies and evaluation techniques in six States and one Union Territory (UT) with reference to the ones identified/recommended at national level.

Eight other States and one UT have adopted the intructional material developed at national level. Assuming that the curriculum also reflects the same MLLs, content teaching-learning and evaluation strategies, the same have not been analysed.

The study also covers the current innovative programmes going on in various parts of the country as an attempt to find out alternatives to meet the basic learning needs of all children in the age-group of 6-11 years. Some of the fore-runner experiments/projects leading to the launching of current programmes also find a place in the study. The reports on the innovative programmes that are running in different states are based on the information collected through different project documents, reports and information collected through informal meetings with persons associated with the project.

Non-formal Education as an alternative strategy to meet the basic learning needs of children who are out of the formal system of education also forms a part of the study. The report includes a resume of the analysis of objectives, content, teaching learning strategies adopted in various parts of the country, under Non-formal Education Scheme.

1.4 Constraints

1. Due to paucity of time and finances made available for preparation of draft report, the study has been confined to the analysis of documents on curricula at national and state levels.

2. The analysis of transactional strategies and evaluation techniques is also confined to the guidelines given in the documents on curricula. In the short span of four months it was not possible to study these in the actual classroom/school situations.

3. The instructional material (Textbooks and Teachers' Guides) could not be included for analysis as it involved requisitioning the services of people knowing different regional languages which was not possible within the available time and funds.

4. The information about Innovative Programmes/Projects is based on the various documents/reports related to them. Case-studies through visits to centres and formal interviews with personnel involved was not possible due to shortage of time.

1.5 Key Terms

Primary Stage of Education	First stage of formal schooling pertaining to classes I-V (I-IV in some states) and covering 5/6-11 years

	age-group, was called lower primary stage before National Policy on Education 1986.
Upper Primary Stage	Stage following primary stage. Duration 3 years, covering 11-14 years age-group
Universal Elementary Education (UEE)	Stage of free and compulsory education from classes I-VIII (I-VII in some states) covering 5/6-14 years age-group
Basic Learning Needs	Knowledge, abilities, skills, values and attitudes needed by a child to grow to his/her full capacity to lead a satisfactory adult life.
Minimum Levels of Learning (MLLs)	Refer to the quantification of the attainment by each child, of knowledge, skills, values, attitude etc. specified in the form of Minimum Learning Outcomes (MLOs).
Minimum Learning Outcomes/ Competencies	Statements of behavioural changes expected in each child through acquiring relevant knowledge, abilities, skills, values and attitudes.

Curriculum	Referes to framework containing Minimum Levels of Leaning (Minimum Learning Outcomes and content), guidelines for teaching-learning strategies and evaluation techniques and outline of the content to help achieve the objectives at primary stage.
Evaluation Techniques	Approaches and techniques used by teachers to identify the learning difficulties of children and using the information/data for modifying the teaching-learning strategies to help each child attain the laid down minimum levels of learning.
Transational/Teaching Learning Strategies	Activities/techniques expected to be planned/adopted by teachers for clasroom interaction to facilitate achievement of MLLs by each child.
Formal Education	Refers to hierarchically structured and chronologically graded education.
Non-formal Education	Refers to organised educational activities outside the formal education system intended to serve out-of-school children including dropouts of primary education stage age-group. The expected levels of attainment are equivalent to those of formal system.

CHAPTER 2

CONCEPT OF BASIC LEARNING NEEDS -INDIAN PERSPECTIVE

INTRODUCTION

Basic Learning Needs of an individual emanate from the basic needs of survival i.e. food , clothing and shelter. To meet the basic needs satisfactorily an individual must get opportunities for optimal growth of his/her capabilities right from his/her early years. Education is one of the media that facilitates this growth by opening a variety of avenues.

The basic needs for the personal growth vary from individual to individual and are related to his/her intellectual, social, physical, aesthetic and moral development. They are also related to the development of abilities and skills needed for adjustment in the environment both social and physical; assimilation of culture of the community; preparation for effective membership of the most fundamental unit in the community-the family; participation in the economic growth of the community by undertaking a suitable occupation; and, preparation for active democratic participation in the government of community and the operation of its institutions.

Basic learning needs originating from the needs of the individuals indicated above are not static. They change with the changes that occur due to various developments-political, social, economic, technological etc.

Efforts to meet the basic learning needs of individuals through hierarchically structured and chronologically graded 'education system' has been a global phenomenon and India is no exception.

At the international level education has been accepted as a RIGHT of every child. Making this RIGHT really meaningful needs clear definition of the essential/basic learning needs of children translated in terms of attitudes, skills and knowledge that they require for an effective and satisfying adulthood. Basic learning needs when defined in operationally meaningful terms serve as guidelines for development of relevant curricula and instructional material and adoption of appropriate transactional strategies and evaluation techniques. A significant attempt in specifying the 'minimum learning package' for children and youth in the rural societies was made by Philip.H. Coombs* in early seventies. This was followed by similar attempts in various countries including India.

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* Coombs, Philip H. et al; New Paths to Learning; Vidya Mandal, Delhi; 1973

2.1 Meeting the Basic Learning Needs

2.1.1 International Concerns

During the last forty years, inspite of concerted efforts by various countries, millions of children of primary school going age have no access to primary education. Out of those who succeed in joining the educational institutions, millions fail to complete the basic education programmes due to premature dropping out of the system. There is still another category of millions who satisfy the attendance requirements but do not acquire the essential knowledge and skills.

This gigantic problem of providing basic education facilities to meet the essential learning needs of children and adults has been a major concern at the international level during the past few years as only satisfactory solution of this problem would lead to the successful tackling of other problems that the world is facing today. In the recent years, the need to solve this problem has been getting more and more importance in different forums which ultimately resulted in organisation of World Conference on "Education For All" at Jomtien, Thailand in 1990 leading to the World Declaration on 'Education For All' adoptng the Framework for Action to Meet Basic Learning Needs.

Referring to the Basic Learning Needs, the Declaration elaborated

> **"these needs comprise both essential learning tools (such as literacy, oral expression, numeracy and problem solving) and the basic learning content (such as knowledge, skills, values and attitudes) required by human beings to be able to survive, to develop to their full capacities, to live and work in dignity, to participate fully in development, to improve the quality of their lives, to make informed decisions and to continue learning". ***

2.1.2 National Concerns (INDIA)

The significance of universal education is not a recent concern in India. It has its roots in the country's concern for planning educational programmes that are relevant and appropriate for meeting the individual and national needs and is evident in the long history of educational development. As early as 1882, the demand for provision of universal primary education by the Government was made when its need was placed by Indian leaders before the first ever Education Commission (Hunter Commission) appointed by the then Govt. of India.

Mahatma Gandhi's scheme of Basic Education proposed in 1930's was the first concrete step wherein the basic learning needs that the system of education could meet, were very clearly defined.

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* 'World Declaration on Education For All, and Framework For Action to Meet Basic Learning Needs'; Reprinted by Govt. of India, MHRD; 1990 P.7.

Basic Education scheme provided for seven years of compulsory education, to all the children through the medium of mother-tongue. The main goal of education was development of the total personality of the learner rather than mere acquisition of knowledge.

The main thrusts of the scheme were on:-

- all round development of the child;
- development of a secular national outlook;
- use of the immediate environment and work as the source of knowledge ; and
- integration of and co-relation between knowledge and work .

The approach outlined by Gandhiji was aimed at providing equal opportunities for need-based education and bringing about a social revolution through its help. In his own words

> **"My plan to impart education through the medium of village handicrafts like spinning and carding etc., is thus conceived as the spearhead of a silent social revolution fraught with the most far reaching consequences. It will provide a healthy and moral basis of relationship between the city and the village and thus go a long way towards eradicating some of the worst evils of the present social security and poisoned relationship between the**

> **classes. It will check the progressive decay of our villages and lay the foundations of a juster social order in which there is no unnatural division between the haves and have-nots and everybody is assured of a living wage and the right to freedom".***

In the post independence period, Universal Elementary Education (UEE) was accepted as a constitutional obligation when its need was highlighted and incorporated in Article 45 as a Directive Principle of State Policy that enjoins

> **"State shall endeavour to provide within a period of ten years from the commencement of this constitution for free and compulsory education for all children until they complete the age of 14 years".**

The constitution also lays down the basic framework for educational development in the country. It provides for equal educational opportunities for all and special protection of religious and linguistic minorities. The major components of the UEE were identified as:

- Universal acess to primary education (provision)
- Universal participation (enrolment and retention)
- Universal attainment (achievement)

It was imperative that the Basic Learning Needs of the children were considered of prime importance and the States' efforts were directed towards satisfying these learning needs. No doubt provision of schooling was the

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* Gandhi M.K., 'Basic Education', Navjivan Publishing House, P.51.

first significant requirement. But alongwith that the content of education was also geared towards fulfilling these needs and found expression in the curricula of the Primary Stage in different parts of the country. The variations in these curricula were expressions of different needs of the people of different regions. The stage of development of education also played an importnat role in determining the content and processes of Primary Education in different States and at the national level. National integration and national unity concerns led to formulation of certain common core areas to be included in the curricula of all the States.

As a first step toward facilitating the meeting of educational needs at elementary stage the main emphasis in the early years of the post independence period remained on efforts for quantitative expansion of elementary education through provision of primary schools.

Report of the Education Commission (1964-66) and the subsequent declaration of first ever National Policy on Education in 1968 (NPE-1968) was a milestone in the direction of meeting the learning needs of children at the elementary stage and enhancement of their learning achievement when the need for expansion of facilities including nonformal education programmes was emphasised alongwith efforts to improve the quality of primary education.

The period between the Education Commission's report (mid sixties) and early eighties was marked by a number of

experiments in education, especially in the primary education, aimed at improving the quality of education and thus contributing to the retentive power of schools and also making education relevant to the basic needs of the individuals as well as those of the society.

The NPE-1968 and the outcomes of the national and state level experiments led to the redefining of the objectives of primary education which became the basis for designing the curricula relevant to the needs of the children in different parts of the country. These developments demanded adoption of appropriate teaching-learning strategies and evaluation approach/techniques which ultimately led to changes in teacher training programmes both in-service and preservice.

Review of the impact of the implementation of various educational programmes/schemes and the demands of changes created due to developments in various fields, necessitated a relook at thrust areas of education as a whole and specific needs of universalisation of elementary education, in early eighties. The major outcome was National Policy on Education in 1986 (NPE-1986) which was accompanied by Programme of Action (POA)-1986 for the time bound implementation of differnt recommendations. Both the documents have once again been revised in 1992 based on the experineces gained in the intervening period.

The policy recommendations with regard to meeting the learning needs and enhancing the attainment level of children were:

- expansion of the scope of UEE (covering 0-14 years) leading to full integration of child care and pre-primary education both as feeder and a strengthening factor for primary education and for human resource deveolopment.

- shift from quantitative expansion to qualitative improvement through provision of essential facilities in each primary school; defining the minimum levels of learning; designing and developing curriculum according to existing needs; adoption of child-centred activity based approach for curriculum transaction; adoption of continuous comprehensive approach of evaluation using appropriate techniques.

- strengthening of the Non-formal Education (NFE) programmes

- establishment of District Institutes of Education and Training (DIETs) to cater to the training needs-both pre-service and inservice of primary school teachers and personnel working in NFE and adult education programmes.

The implementation of programmes related to primary education currently going on in the country as well as innovative programmes initiated at national and state levels by different agencies (both government and non-government) are the efforts towards meeting the basic learning needs and enhancing the learning achievement of children.

2.2 Defining the Minimum Levels of Learning (MLLs)

The need to define the 'attainment levels' or 'standards' of each stage of education was highlighted in the recommendations of Education Commission (1964-66) which was emphatically reiterated in NPE 1986 through its resolution on the need to define the MLLs.

Minimum Levels of Learning (MLLs) refer to the quantification of the attainment, by each child, of knowledge, skills, values, attitudes etc. specified in the form of Minimum Learning Outcomes (MLOs)/Competencies to be attained through the study of different subject areas in a formal school or a non-formal education centre. In other words MLLs indicate the 'essential' (minimum) 'standard' of 'behavioural changes' that take place in children when they are exposed to the content in different subject areas in the classroom or out of classroom situations.

The MLLs laid down and being implemented in the country are the outcome of efforts made in this direction during the last two decades. At different stages these were listed under different nomenclatures such as 'minimum learning objectives' 'minimum learning competencies' or 'terminal conpetencies' 'minimum learning outcomes', 'expected learning outcomes', 'expected behavioural outcomes' etc.

The task of laying down these learning outcomes was undertaken at the national level by National Council of Educational Research & Training (NCERT) based on the wide

experiences gained through different experimental projects. These efforts aimed both at finding out a common thread and also to set a kind of standard at the national level to be achieved by learners belonging to different groups/communities. Though all these efforts adopted different approaches yet they resulted in large number of commonalities. For instance, the initial work done by 'Kadam' et al in defining Minimum Learning Objectives, was an effort to set educational goals in terms of major objectives and minor objectives and their facets alongwith instructional strategies. Almost similar approach was adopted when the first curriculum for non-formal education for out-of-school children was attempted by Rawat, et al in 70's. This was followed by the shift in stress on outcomes rather than on objectives which emphasised that the expected learning outcome was very important because it gave more freedom to teacher to adopt methods suiting to individual learning needs. Development of 'minimum learning continuum' was attempted under a nation wide experiment 'Primary Education Curriculum Renewal' (PECR) undertaken by NCERT which helped the further split of the learning outcomes into various competencies expected to be achieved by each child. Minimum Learning Continuum identified a set of terminal competencies to be achieved at the end of primary stage by all children. 'Minimum learning' and 'mastery' were the two important concepts contained in the document. The terminal competencies were placed in a graded continum for classes I-V.

The resolve of NPE-1986 to define the MLLs of every stage of school education resulted in two documents on the

subject at national level. The first attempt in this direction was made by Dave et al and the other was made by a specially constituted committee by MHRD. These exercises led to the laying down of the minimum levels of learning in each subject area at primary stage in terms of minimum learning outcomes/competencies to be attained by each child at primary stage.

The following major concerns of the country as well as the individual needs influenced the defining of the minimum levels of learning, which are:

- individual concerns-such as need to acquiring knowledge, understanding; development of skills, values and attitudes.
- national concerns such as preservation of cultural heritage, constitutional obligations, strengthening of national identity etc.
- political, socio-economic considerations
- protection of the environment and conservation of national resources.
- observance of small family norm etc.
- international concerns such as the need for world peace, international understanding etc.
- pedagogical concerns such as education for all round development of every individual, evolving a child centred approach to education etc.
- facilitating learning 'how to learn'.
- facilitating creative expression
- inculcation of the scientific temper
- interface between education and the world of work etc.

2.3 Implementation of Minimum Levels of Learning

The minimum levels of learning laid down at national level have been adopted all over the country. They have been further defined in the form of minimum learning outcomes or competencies in the curricula developed for primary stage at national and state levels. The selection of content for helping children attain these levels has been guided by these. The curricula developed also provides guidelines for teaching-learning strategies as well as methodologies and techniques of continuous and comprehensive evaluation.

The minimum levels of learning identified in terms of competencies are being implemented by about 15 agencies (list appended) including NCERT in different parts of the country. The major thrust is on competency-based teaching and evaluation. Handbooks for teachers, alongwith organising short-term orientation courses, have also been developed for their guidance. For competency based evaluation, item pools in different subject areas have also been developed.

The programme undertaken by NCERT seeks to

- develop support material for the teachers;
- strengthen manpower resource base in the form of resource persons at the state level;
- orient/train teachers in selected blocks in adopting MLLs approach characterised by competency based teaching-learning process and continuous and comprehensive evaluation;

- raise level of achievement of the students in terms of MLLs competencies; and
- enlarge programme base through wider infusion in the system by the state.

The programme was initiated in Jan. 1991 in four states in one block each in four states covering 330 schools (M.P., Rajasthan, U.P., and Bihar). The programme focuses on improvement of quality of learning by all students up to the primary stage which would ultimately envolve state specific implementation processes to facilitate wider infusion thus taking care of the quality aspect of the goal of U.E.E.

Similar efforts are being made by fifteen other agencies in different parts of the country.

The broad objective of all these efforts is to find out the extent to which the MLLs laid down are attainable by each child when the classroom interaction is child-centred and competency based, and the level of achievement is also tested through continuous competency based evaluation approach followed by remedial teaching.

The outcomes of the programme are expected to provide guidelines for having a relook at the MLLs before finalising the levels at the country level and also for modifications in teacher orientation programmes with thrusts on child-centred competency based teaching-learning and evaluation processes.

2.4 The Present Study and Minimum Levels of Learning

For purposes of this study, the Minimum Levels of Learning (MLLs) laid down at the national level for primary stage in terms of terminal competencies at class V level have been used as criteria reflecting knowledge, abilities, skills, values, attitudes required to meet the Basic Learning Needs of children in Primary Education. The curricula developed at national level containing the competencies in a continuum/minimum learning outcomes, content identified to attain these competencies have been used as criteria for judging the relevance and appropriateness. The teaching learning strategies and evaluation approach/techniques recommended at national level have been considered as criteria for their appropriateness to help children attain the laid down MLLs.

CHAPTER 3

BASIC LEARNING NEEDS : REFLECTIONS IN CURRICULA

India has federal system of government wherein the states enjoy autonomy in many spheres of development including education. However, for planning the state specific educational programmes they are expected to keep in view the parametres of the National System of Education that has evolved during the post independence period. The system implies equal opportunities to all for not only access to educational facilities but also in conditions for success; a common structure of education; a national curricular framework which contains a common core (non negotiable) alongwith other components that are flexible, common scheme of studies; and, introduction of norms of minimum levels of learning for each stage of education.

Education in India is the responsibility of the States but in view of the gigantic problems being faced in balanced progress in various parts it has also been included in the 'concurrent list' making some aspects the joint responsibility of both the central and the state governments.

To fulfil the constitutional obligation of Universalisation of Elementary Education (UEE), various efforts have been/are being made by central and state governments not only for providing access to this stage of education but also for creating conditions for enhancing the learning achievement of children through formal and non-formal systems of education.

To accommodate the wide diversity in educational needs of various states, the system provides for enough flexibiity in planning programmes and developing curricula that are need specific and call for varied content, adoption of teaching learning strategies and evaluation approaches. This type of flexibility is also provided for in NFE system, whose MLL remaining the same, a variety of content, materials, methods of transaction and evaluation techniques are being developed and adopted. The equivalence of achievement is however, being ensured by having same MLLs.

With reference to objective one of the present study, curricula at the national and state levels have been analysed. The methodology adopted and report of the analysis for formal and non-formal programmes follows:

Section I

3.1 Methodology

For purposes of analysis of the curricula, the first step was to list down the MLLs required to be attained by each child at primary stage to meet his/her Basic Learning Needs.

The two documents developed at national level entitled "Minimum Levels of Learning at Primary Stage - Syllabi including Common Core Components" and 'Minimum Levels of Learning at Primary Stage-Report of Committee set up by MHRD' were consulted. Both these documents have their origin in the document 'Minimum Learning Continuum' developed in late seventies though they are the outcome of the actions taken for the implementation of NPE-86.

The analysis of these two documents also helped in identification of the 'Basic Learning Needs' being attempted to be met through the existing curricula at national level in all the subject areas at primary level. The subjects are:

- Language - one (mother tongue/regional language)
- Mathematics
- Environmental Studies I & II (I - Social Studies, II Science)
- Work Experience
- Art Education
- Health and Physical Education

Besides the above, a very significant reference for identification of the learning needs is the non-negotiable component of the curriculum in terms of 'Common Core Components' recommended to be integrated in curriculum at school stage. They are:

- The history of India's freedom movement
- The constitutional obligations
- Content essentialto nurture national identity
- India's common cultural heritage
- Egalitarianism, democracy, and secularism
- Equality of the sexes
- Protection of the environment
- Removal of social barriers
- Observance of the small family norm
- Inculcation of the scientific temper.

3.1.1 Sample

The guidelines developed by NCERT for designing curriculum as a follow up of the declaration of NPE-1986 and actions recommended to be taken in POA were widely disseminated to the States and the Union Territories in the country. These guidelines formed the basis of the renewal of curriculum in different States. Similarly, the instructional material developed by NCERT was also disseminated to the States. While some of the States have adopted this curriculum and instructional material in toto (Madhya Pradesh, Himachal Pradesh, Jammu & Kashmir, Haryana, Tripura and Delhi) others have adopted them in the case of some subjects only (Bihar and West Bengal). Specific need based material has been developed by NCERT for Arunachal Pradesh, another State of the country. Besides the above, all the Kendriya Vidyalayas (Central Schools) in the country are using the instructional material developed by NCERT. It has been assumed that all the Minimum Levels of Learning (MLLs) as laid down at the national level are being followed by all these states and schools for planning their programmes for implementation. Similarly, the implementation of the programmes of minimum levels of learning aiming at developing competencies identified at national level by NCERT and about fifteen other organisations is assumed to be catering to the nationally accepted levels of learning.

Out of the remaining states it was decided to select curricula of six other States (Kerala, Maharashtra, Meghalays, Rajasthan and Uttar Pradesh) for indepth analysis.

The criteria against which these states were selected are:

- representation to four regions - North [Uttar Pradesh(U.P.)], South (Karnataka and Kerala), North east (Meghalaya) and West (Rajasthan and Maharashtra)
- representtion to states of varied size in terms of area and population such as large (U.P.), small (Meghalaya, Kerala) medium (Maharashtra and Karnataka)
- representation to areas representing different linguistic groups
- representation to various geographical areas (plains, hilly, coastal, etc.)

The curricula of the Union Territory of Delhi was also included for purposes of indepth analysis as an exemplar from the States/UTs that have adopted in toto the instructional material developed at national level.

3.1.2 Analysis of the Curricula

The curricula obtained from the sample States was analysed in terms of minimum levels of learning laid down in the form of objectives-general as well as specific, content of different subject areas; guidelines for teaching-learning strategies; and, approaches and techniques of evaluation.

Besides the curricula of the formal schools the curricula including content, teaching-learning strategies and evaluation techniques adopted in non-formal education programmes have also been analysed.

SECTION II

3.2 Formal System of Education

The basic learning needs that are attempted to be met through different curricular areas at the national and state levels are presented in this section. Outcomes of the analysis of MLLs, content (learning areas) identified in the context of these needs, teaching-learning processes, and evaluation techniques recommended to be adopted to help children attain them, form the major part of the description that follows.

3.2.1 Language (Mother Tongue/Regional Language)

A child is expected to acquire various skills through learning his/her mother tongue at primary stage. The major focus of the language teaching at this stage is on helping the child increase the range of his/her vocabulary to enable him/her to.

- communicate orally with peers, elders with reference to day-to-day life needs, using appropriate words, sentences, facial expressions, tone, pitch, gestures etc. (oral expression)
- understand and assimilate incoming communications in various forms (listening skills)
- read and understand the various forms of written materials with gradual increase in speed in loud and silent reading through development of proper coordination of eye movement (reading skills)

- develop skills of communicating through writing, using appropriate vocabulary, form of letters, words and structures accurately, legibly and neatly (written expression).

The details of the levels of skills and knowledge a child is expected to acquire are indicated in Appendix II. An indepth study of the tables indicates -

Minimum Levels of Learning

- At national level every child is expected to acquire a vocabulary of 5000 words in his/hermother tongue to develop different skills in language. Five out of seven sample states have not specified the number of words. In the case of other two the expectation is much lower.

- Ability to receive incoming communications, such as, commands, instructions, directions, and information such as news on radio and television etc. are reflected in the curricula of three States and one UT while the assimilation of various forms of communications such as, teacher's presentation, speeches, recitations, skills, narrations, poems plays, essays etc. is reflected as expected learning skills in all the seven States.

- The language curricula in all the States aims at developing good listening habits and attitudes leading to appropriate expressions and use of correct words, sentence structures and phrases etc.

- Use of appropriate vocabulary in conversation with others, giving directions; instructions; commands; recitations; making speeches; participation in discussions, skits, dramas; and speaking with correct pronounciation, using appropriate tone/pitch accent and feelings etc. are also reflected in the MLLs of all the States except non-specification of only one objective of conversation with others in the case of Rajasthan.

- Only in two State the children are expected to grasp the important points relevant for recall later from various incoming communications.

- Among the reading competencies, knowledge of printed visuals, symbols i.e. letters; words, punctuations, in print and other material are found uniformally in the curricula of all the States whereas the coordination of eye movements from left to right (right to left in case of Urdu) is reflected only in one State.

- Developing skills of rapid reading and use of dictionary and encyclopedia is reflected in the curricula of three states.

- In five States children are expected to analyse and assimilate informal written communications such as, directions, instructions, notices, at public places. Only in the case of Karnataka the skills of analysis and assimilation of informal communications have not been specified.

- Development of good reading habits and appreciation of the beauty of the language in written form are expected to be acquired through the curricula in four states.

- Development of coordination between eyes' movement and small muscles of the body is one of the learning outcomes which is missing in most of the States except Meghalaya.

- The ability to re-write visual printed symbols in correct format, legibly and neatly; the skills of taking dictation with all punctuation marks; and, writing of short compositions in appropriate vocabulary are other skills that are expected to be acquired by children in all the States.

Content Areas

The content areas of language at national level as also in all the states include listening comprehension, oral expression, reading comprehension and written expression. Content related to common core components though highlighted at the national level, has not been specified in any of the state.

Transactional Strategies

As regards transactional strategies, child-centred and activity-based approach using techniques like games, play, drill, recitation, role play, discussion dramatisation, field visits and picture reading have been recommended by almost all the states barring two.

Evaluation Techniques

Continuous and comprehensive evaluation has been suggested as a mode of integrating teaching learning process with the evaluation. Almost similar approach of evaluating learning outcomes has been suggested by almost all the states.

3.2.2 Mathematics

The basic learning needs of children that can be met through teaching of mathematics are:

- knowledge about the basic concepts in mathematics
- knowledge of basic vocabulary and methematical symbols
- development of competencies that facilitate mathematical operations and their operation in day-to-day life, and, for further learning
- development of skills to think, reason, analyse and articulate logically
- development of good working habits such as accuracy in performing mathematical operations, systematic and orderly approach to solving problems.

A detailed analysis of the curricula reflecting the basic learning needs aimed at achieving through teaching of mathematics, its content teaching-learning strategies and evaluation at national and state levels depicted in Appendix II indicates the following-

Minimum Levels of Learning

- knowledge and understanding of numbers and numerals has been prescribed upto one crore at the national level as also in most of the states except in Karnataka and Meghalaya where they delimit it upto 1 lakh where lower primry is upto IV Standard.

- Knowledge and understanding of place value at national level as also in five other states is expected upto 9,99,999. In two of the states they extend it upto one crore.

- Use of decimals and knowledge of basic addition and subtraction operations are found to be prescribed by all states alike.

- Skills of addition and subtraction are found in the range of 5 digit to 8 digit numbers in different states. National level documents recommend for addition and subtraction upto six digit numbers only. Most of the states follow the recommendation with regard to multiplication by 3 digit numbers only. Most of the states follow this recommendation with

regard to multiplication by 3 digit numbers and division by 2 digit numbers. State of Rajasthan appears to follow 3 digit multiplier and divisors.

- Concepts and computational skills in the areas of measurement of length, mass, capacity, area, volume, time, money and temperature appear to be followed uniformally by all states as prescribed by the national level documents.

- Understanding of relationship among two/three dimensional shapes, quantitative problems related to real life situations, developing good work habits, development of desire for further mathematical knowledge and knowledge and skills pertaining to percentage were found to be followed in all states alike as per the national level recommendations. However, two of the States do not include percentages.

- Recreational mathematics has been recommended at the national level. There is provision for it in Delhi while it is missing in the curricula of rest of the states.

- Application of mathematics in solving problems in day to day life situations is provided for at national level as well as in almost all states. Certain states extend it to commercial problems.

Areas of Learning (content)

Areas of learning as prescribed in national documents are commonly followed by almost all the States. Algebra finds place in the curriculum of the two of the sampled states. Besides this, some other topics like compound interest, number and sets also constitute the syllabus of Mathematics in Kerala.

Transactional Strategies

An analysis of the transactional strategies as mentioned in the curriculum of mathematics in various states revealed that most of the states prescribe child-centred and activity-based approaches. Competency-based approach finds mention in the curriculum of three states. State of Rajasthan gives emphasis to problem solving approach as well. Curriculum of Kerala lays stress on process oriented approach. Meghalaya and Karnataka also recommend drill method for repeated practice so as to be able to achieve the competencies. U.P. curriculum does not provide for details of transactional strategies for teaching of Mathematics.

Evaluation Techniques

Survey of evaluation techniques as mentioned in the curriculum of mathematics in various states revealed that most of the states have provisions for continuous evaluation in the form of observation, oral and written examination. Two states have provisions for comprehensive evaluation as well. Diagnostic and remedial techniques find place in the curriculum of as many as four states.

3.2.3 Environmental Studies-I (Social Studies) & II (Science)

A young child even before starting formal school has a large repertoire of knowledge and skills. For systematic development of cognitive processes and understanding of the objects, events and phenomena occuring in the environment and developing further skills/abilities of 'how to learn', Environmental Studies has been included as a significant area in the curriculum of primary stage.

The basic learning needs that are targetted to be met through the study of this subject are:

- knowledge about the basic facts and information about the immediate social and natural environment
- development of norms and modes of behaviour needed to adjust in the society
- awareness about environmental degradation and ability to conserve the natural environment
- appreciation of the diversity-geographical, social, economic and cultural alongwith the composite nature of the culture and national identity
- knowledge of national symbols, constitutional rights and [illegible] duties
- development of healthy values and attitudes needed as a good citizen
- knowledge of scientific methods of inquiry and their use in solving problems
- development of scientific temper
- development of knowledge of self and desirable healthy practices, habits, and attitudes

Appendix IV outlines the details of minimum levels of learning laid down, content identified to help attain them, and the teaching learning processes and evaluation techniques recommended to be adopted. A study of the related tables reveals the following-

Minimum Levels of Learning

- Knowledge of basic facts and information about immediate social, physical and natural environment such as different people, institutions, means of transport and communication, flora and fauna natural resources expected at the national level is also reflected in the curricula of as many as five states.

- Understanding the process of origin of happenings or events, taking place in the world around is reflected in only two states' curricula.

- Development of norms and methods of behaviour consistent with the values enshrined in the constitution of India such as democratic way of life, national identity, equal rights and responsibilities respect for others' religion and way of life and copperation and concern for others is reflected only in the curricula of three states.

- Understanding that India's rich cultural heritage is essentially mixture of many races and people is evident in the curricula of as many as five states.

- Appreciation of culture and ethnic similarity, differences and diversities, contributions made by Indians belonging to each of the regions and the races and linguistic groups exist once again in five state curricula.

- Need for international understanding is reflected only in Uttar Pradesh Curricula

- Knowing basic facts and information about the human body, about its growth and development finds place in the curricula of almost all the states. So does the understanding of the functions of various parts of the human body; and understanding the need for keeping the body and environment clean, healthy and disease free particularly from those which are area specific.

- Developing good and healthy habits for improving ones own quality of life such as maintenance of personal health and hygiene, care of the eyes, ears, nose, teeth etc; for prevention and control of accidents and disabilities is also reflected in almost all the states curricula.

- Appreciating the inter-dependence of man and nature (Flora and Fauna) and the need for protecting and conserving the environment find mention in the curricula of only two states.

- Knowing the basic facts and understanding the basic concepts of science through environment; performance of experiments to verify underlying principles, processes and methods of science are reflected in almost all states curricula.

- Only two states make a mention of application of knowledge and concepts, principles, processes and methods learned to solve academic and day-to-day life problems for improving the quality of life of the individual, the family and the community.

- Developing interest and appreciation of contributions that science and technology have made to improve life is reflected only in the curricula of two states.

- Developing attitudes and values such as objectivity precision, critical thinking and goal directedness are specified in as many as three states curricula.

- Curricula of Delhi contains all the components included in the national level MLLs.

Content (Areas of Learning)

- Content areas such as awareness about human body, functions of different parts; constitution and role of family; institutions/places of importance; knowledge about The Earth, The Sky; natural surroundings including plants and animals; recommended at national level are included in the curricula of all the states.

- Knowledge about life in the district and State, including physical features, climate and civic amenties is part of the curricula of all the six states and one UT

- knowledge about the life of early man finds place only in the curricula of three states.

- Curricula of some states like Kerala, Meghalaya do not have content related to life in the Country (India) while at national level and in the remaining states it is an important component.

- Knowledge about continents, oceans, use of globe and map is part of the learning areas except that in the curricula of Meghalaya

- Understanding the fast Changing world, role of UN finds a place in the curricula of as many as three states.

- Reference to only one common core component 'History of India's Freedom Movement' is evident in the curricula of all the states.

- Knowledge of living things, their characteristics and adaptation to environment; food groups, functions of nutrients and food sanitation; waste water management; garbage disposal; knowledge of communicable diseases, their prevention, knowledge about health and hygiene-need and ways to keep healthy; are part of the curricula in all the states.

- content areas like materials and their properties; weather and crops; soil and crops; force, work and energy; soil erosion and conservation; air and its usefulness, shadow formation, solar system, formation of solar and lunar ecipses, are part of the curricula in all states.

- The learning areas of accidents their causes and ways to avoid them; and deficiency diseases do not find any place in the curricula at any state level but safety rules and first aid are part of the State Curricula

Transactional Strategies

- Child-centred activity based approach of curriculum transaction recommended at the national level finds place in curricula of all the states.

- Techniques like science process, field trips, discussion, dramatisation, role play, individual/group assignments seem to be popular in all the states.

Evaluation Techniques

At the national level the approach suggested is continuous and comprehensive evaluation and the techniques are diagnostic testing and remedial teaching, observation, oral and written test, performance based test and teachers records. Delhi does not make mention of any evaluation techniques while Rajasthan adopts competency-based evaluation

approach based on oral or written tests, performance based evaluation and thereby continuous comprehensive evaluation. In Karnataka only marking scheme/grading has been indicated Kerala makes a mention of continuous and comprehensive approach, formative in nature through check-lists, oral and written tests, practical examinations and commulative records and techniques. Maharashtra refers to diagnostic testing/remedial teaching, written tests, and grading. Meghalaya adopts continuous evaluation approach through use of oral and written tests, teachers' observations, anecdotal records as techniqes. Uttar Pradesh curricula makes a mention of oral questionning, observation, check-lists, picture based and performance based evaluation and written tests.

3.2.4 Work Experience

Participation in purposive and manual work as a means of all round development of human personality has been accepted all the over world. In India also the concept of linking education with work and productivity was the central point in Gandhiji's scheme of Basic Education. In post-independence period it has been one of the important curricular areas in school education known as either Socially Useful Productive Work (SUPW) or Work Experience.

The basic learning needs that are aimed to be met through this curricular area are-

- development of neuro-muscular control and coordination and basic motor skills

- development of desirable social behaviours and attitudes
- inculcation of respect for manual work, work ethics; and positive attitudes and values related to productive work and personnel involved in that;
- awareness about the world of work in the immediate environment
- knowledge about the concepts, facts, scientific principles involved in various forms of work situations
- development of skills to make small repairs, decorate/beautify the suroundings

Minimum levels of learning laid down at national level and the extent to which they are reflected in state curricula are given in Appendix V. A study of these shows the following:

Minimum Levels of Learning

- Familiarity with and awareness of various work situations, elementary processes of work/productive activity and problems existing in the community/environment have been found in al most all the states.

- Making small repairs, fixing things, decorating and beautifying the surroundings have been reported as needs in only two states.

- Skills related to handling various simple tools required for making small articles of day to day use from the locally available materials, tools and

equipment required for tasks such as cutting, pasting, digging, sowing, watering etc. are expected to be acquired in curricula of the three sampled states.

- Skills for maintaining of kit of tools and equipment required for making small repairs/things in home and school have been reflected in the curricula of almost all the states.
- Development of appreciation for manual work and having regard for the workers in the community who produce things and/or provide useful services in the community is again expected in all these States.
- Performing small tasks with accuracy and precision has been included in the curricula of only two states.
- Developing values such as regularity, punctuality, cooperation and comradeship, perseverance and honesty has been included as expectations in almost all the states.

Areas of Learning

At the national level seven areas of learning have been outlined. These are-familiarity with various work situations; tools and materials; service centres; local raw materials and their sources; scientific principles and processes, maintenance of tools; cleanliness of place of work; and, health and hygiene. Delhi has all these components and also indicates common core components in terms

of environment protection and national integration. Karnataka excludes scientific principles and processes, maintenance of tools and common core components, same is the case with Meghalaya. U.P. has excluded familiarity with work situations and service centres. Rajasthan has not included familiarity with service centres, local raw materials and its sources and common core areas. Curricula in Kerala excludes familiarity with service centres, local raw materials and their sources, and scientific principles and processes. It also does not mention common core components.

Transactional Strategies in Work Experience

At the national level thematic approach, visits to work situations, child-centred and activity based and process based development as transactional strategies for learning work experience have been recommended. Delhi emphasizes project approach and self identification of relevant activities and materials by pupils as tansactional strategies. Karnataka mentions visits to work situations and child-centred and activity based approach. Kerala also stresses activity based approach while Maharashtra adopts project approach coupled with visits to work situations, child centred activities and process based development. Meghalaya adopts strategies of child-centred activity based approach with visits to work situation, observation and experimentation and problem-solving through discussions. Rajasthan adopts child-centred activity based approach with

visits to work situation and development of scientific processes as methodologies. U.P. and Rajasthan adopt similar approaches/strategies such as visits to work situations, child-centred activities and development of science processes.

Evaluation Techniques

At the national level continuous and comprehensive approach has been recommended and the techniques suggested are observation, check lists, oral tests, opinionnaire and record keeping. Delhi adopts comprehensive and continuous evaluation approach. No techniques are given except self record to be kept by pupils and teachers. Karnataka indicates terminal tests while indicating fequency and marking scheme. Kerala does not indicate anything. Maharashtra recommending diagnostic testing does not indicate anything except written tests though not be depended on totally. Meghalaya adopts performance based evaluation aproach based on observation oral and written tests and keeping the records. U.P. adopts comprehensive continuous evaluation but does not give any guidelines. It depends upon observation, check list, oral and written tests.

3.2.5 Art Education

A young child is naturally curious. He/she observes and gathers and stores many ideas, thoughts, emotions which he/she expresses spontaneously. His/her creative expression can take many art forms, such as play, singing, dancing, drawing, painting etc. His/her fantasy and make believe world is unique and wonderful. Each child has his/her own personal mode of expression. This innate quality needs nurturing. This is why Art Education has been regarded as an important curricular area for all round development of a child at the primary stage.

The basic needs that art education helps to meet at this stage are:

- development of skills of observation, and self expression through media of visual and plastic arts;
- facilitating free expression through simple form of music, dance and drama;
- the ability to discover and identify preferable means of self expression out of a variety of media, materials exposed to him/her;
- creation of awareness of aesthetic elements in traditional art and develop love for beauty in nature; and
- appreciation of the variety and richness in cultural heritage and develop pride in being Indian
- sharpening the sensibilities of seeing, hearing, touching and moving

Analysis of state level curricula vis-a-vis the national curriculum (Appendix VI) reveals the following:

Minimum Levels of Learning

- developing willingness to receive, understand and appreciate, artistic expression existing in the learning environment is reflected only in three states' curricula.
- appreciation of various forms of folk arts, music, dance and drama, or those rendered by others; providing opportunities for expression through simple forms of arts; providing opportunities for expression through simple forms of plastic and performing arts, are reflected in the curricula of all the sampled states.
- participation in performing arts also finds place in all the above states
- manipulation of several kinds of material specially waste material to create variety of art forms or things, two or three demensional ones is mentioned only in Meghalaya
- appreciation of art and craft objects and articles produced by the local artisans and artists is reflected in curricula of Karnataka and Meghalaya.

Content

The content of art education as delineated at national level contains the areas of drawing, painting, collage, clay modelling, construction, music, dance, drama, exhibition

decoration and printing. Drawing and painting is reflected in the curricula of all the states under study. Making collage and clay modelling are included in almost all the states. Music is once again reflected in all the states except U.P. and Rajasthan, while dance is reflected only in Delhi and Karnataka. Drama/Mimicry is also part of curricula in all the states except U.P., while exhibition does not find a mention in Kerala and Rajasthan. Decoration through use of waste and other materials finds a place in curricula of as many as five states while printing is mentioned only by three states. Common core components are not indicated in any state.

Transactional Strategies

The national level document specifies child centred activity based transactional strategies. The methodology of teaching learning recommended is individual activity (drawing painting etc) or group activity (song, dance etc) Most states have suggested this approach. Other techniqes mentioned are free expression, use of local resources, visits to fairs, museums, and other recreational centres (Rajasthan).

Evaluation Techniques

The National level document has suggested individual evaluation. No rigid system of evaluation in the area of art education has been recommended. Individual evaluation and individual observation by teacher are some of the methods

suggested in one or two states. In other states evaluation techniques in art education have not been specified except Karnataka, which mentions inductive and deductive method and has also suggested grading system including terminal tests.

3.2.6. Health and Physical Education

A. Health Education

Health is also one of the basic needs for mere survival. Therefore, health education has been given a significant and prominent place in the curriculum for all stages of school education. The concepts, understandings relating to health at the primary stage are integrated into different subject areas. Apart from being a separate curricular area under Health and Physical Education where emphasis is on enhancement of health habits and practices - it is also integrated in Environmental Studies - II (Science), Work Experience and Language.

The basic learning needs proposed to be met through this learning area are:

- acquiring desirable knowledge, understanding, skills, attitudes and practices with regard to health and environmental sanitation so as to improve the health status of self, family and community.
- developing habits of personal hygiene and environmental hygiene.
- developing awareness about common health problems including communicable diseases and their prevention; nutritional problems including mal-nutrition, its causes and prevention; environmental sanitation and prevention of pollution.

(A) Minimum Levels of Learning

The Minimum Levels Learning (MLL) listed in Appendix VII A, in the national curriculum was taken as a reference point to analyse the state level curricula. The analysis shows the following:

- Identification of parts of human body and their functions is included in all states curricula.
- Knowledge of internal organs and organ system is included only in a few states.
- Taking care of self by following regular habits of rest, sleep, exercise, proper posture is reflected in the curricula of as many as three states.
- Development of habits of personal and environmental hygiene is included in all States.
- Identification of locally available food stuffs, major food groups, nutrients and their functions, is found in all States.
- Balanced diet and deficiency diseases, their signs, symptoms and prevention is missing in all States curricula except in that of Rajasthan.
- Development of ability to select right type of food within the limited purchasing power is not reflected in any curriculum.
- Adopting proper method of cooking to avoid nutrient loss is included only in three states curricula.
- Handling safely the water used for cooking and drinking and simple methods of purification of water to make it safe is expected through the curricula in as many as three states.

- Disposing waste water and garbage properly is found only in three of the sampled states' curricula.
- Developing ability to distingnish between communicable and non-communicable diseases is reflected only in three states' curriculum.
- Classification of communicable diseases into food and water borne diseases; air borne diseases, and, insect borne diseases is included only in two of the seven states.
- Taking steps for spread of communicable diseases and getting himself/herself immunized has been found in all States, including motivation and compaigns.
- Practising desirable norms of social behaviour and good manners is reflected only in two states.
- Interpreting signs and symbols of road safety and observance of rules of road safety is part of the curriculum of only three out of seven states.
- Reference to knowledge about steps for prevention of accidents is made in the curricula of three states.
- Application of simple first aid in case of minor accidents is included in all state curricula.

(A) Content

The major content areas suggested in the national curriculum were analysed vis-a-vis the State curricula and findings are as follows:-

- Personal cleanliness and appearance is included in as many as five states' curricula.

- Care of body (rest sleep, exercise, posture etc) are present in the curricula of four states and cleanliess of surroundings or environmental hygiene in three states.

- Food, food groups, their functions, food hygiene is found in as many as five states' curricula. Water its use, purification, prevention of population and conservation etc. is included in all States. Same is true for air and its pollution.
- Consumer education, ill effects of drugs, alcohol, smoking and safety measures to avoid accidents and first aid measures are included in curricula of four states. It may be noted that one of the states (U.P.) does not have 'Health, Education' as a separate curricular area.

(A) Transactional Strategies

The transactional strategies recommended in the national level curriculum include child-centred, activity-based approach. The variety of teaching learning strategies/techniques suggested are-small group activity, visit to community centres, survey, role play, dramatization, health exhibition, campaigns, health code etc. The analysis of the state curriculum show that all States have recommended child-centred acivity-based approach except two states. The techniques for teaching learning are specified only in the curricula of Karnataka and Rajasthan. In Karnataka the emphasis is on group activity, visit to health centres, film show, role play, dramatization, visits to fairs. In Rajasthan techniques suggested are-project work, story telling, group activity, health exhibition and dramatization etc.

Evaluation Techniques

At the national level, as in other curricular areas, Continuous and Comprehensive Evaluation has been suggested. Since it cannot be taught in a specified period, the evaluation too has been suggested to be continuous through informal observation and reinforcement of positive practices by teacher often by self examples. Among tools and techniques of evaluation observation schedule; checklist; anecdotal records; oral and written tests; and performance based tests have been suggested. Observation by the teacher of deviations from health and referring such cases to PHC have also been suggested. To improve practices, devising of health code and its modification from time to time depending on the need has been recommended both as teaching strategy and also as technique of evaluation. Further, necessity for keeping cummulative record card of each child to monitor individual achievement has also been emphasised.

A Survey of the State LevelCurriculum shows no special emphasis on evaluation aspect. Though most of the states have mentioned that evaluation should be continuous and comprehensive, no specific suggestions have been made with regard to tools and techniques except that of Karnataka which has suggested a three point scale and Maharashtra recommends diagnostic testing. Kerala and Rajasthan have suggested observation schedule, check-list practical tests, interview, oral and written test as techniques. Keeping of the ancedotal records is suggested by Rajasthan as a tool.

B. Physical Education

Need for play for a child is as important as the need for food, care and affection. Play is a real source of joy and satisfaction to a growing child. The pe-requisite for an active participation in play is a physically fit body. As the child grows, alongwith increase in his/her ability for muscular coordination, rhythmic movement of body parts, his/her strength, speed and stamina also develop. Physical Education has been included as a curricular area (alongwith health education) in order to help each child grow into a well-coordinated individual physically and mentally through proper channelising of the above mentioned natural attributes of the child.

The basic learning needs that are attempted to be achieved through this curricular area are:

- development of control and coordination of various parts of the body
- development of strength, stamina, speed, balance, endurance and grace in movements
- development of moral and social values required for adjustment in society
- awareness and knowledge about national and international games and ability to appreciate their need and enjoy participation/watching them

The minimum levels of learning each child is expected to attain, the content (practices), teaching learning strategies and evaluation techniques at national and state levels are depicted in Appendix VII B. A Study of the same indicates the folowing:

(B) Minimum Levels of Learning

- Development and proper use of body i.e control and coordination of various parts, big and small muscles of the body and facile locomotion and acquisition of playing skills is reflected in the curricula of almost all the states.
- Development of strength, stamina, speed, balance coordination endurance and grace appropriate to learners' age group is reflected in almost all the states curricula.
- Participation in games as members is reflected in four states curricula. Similarly, participation in sports events as individuals and in team is also reflected in these very States.
- Knowledge and understanding of Indian and International games and sports enabling them to enjoy, watching them has found place in the curricula of only two states.
- Development of team spirit, cooperation, healthy competitiveness, tolerance and leadership etc. is reflected in the curricula of almost all the states.

Content (Areas of Learning)

The areas of learning in the field of physical education as reflected in national and state curricula are-free movement, imitation and mimicry, small area, minor games and rhythmics, combatives, lead up games, gymnastics track and field sports, team games, Yoga Asanas and Acquatics. All these areas of learning which figure at national level also figure by and large in almost all the states in one form or the other.

Transactional Strategies

The transactional strategies as specified at the national level are individual and group activities. No State makes any mention of transactional strategies in physical education except Delhi which mentions individual and group activities.

Evaluation Techniques

The evaluation approach and techniques in physical education as listed at the national level are continuous and comprehensive evaluation through use of techniques like check-lists, related to appropriateness, poise, accuracy precision, speed, frequency, ability, readiness, confidence, courage, willingness etc. to be rated through observation and sometimes oral and witten tests. Delhi does not specify any evaluation approach or technique while curricula in Rajasthan mentions continuous evaluation with diagnostic and remedial approach based on observation, check-lists. Karnataka mentions activity-based continuous evaluation based on records. Meghalaya curriculum indicates grading scheme while others are silent on that.

Section - III

3.3 Non-Formal Education System

The genesis of NFE in India is essentially out of concern for achieving Universal Elementary Education which has been an eluding target for the last 45 years now. An analytical look at the nature and content of NFE since its beginning, shows that it was highly influenced by Gandhiji's concept of basic education. The early experiments of Bhumidhar, Barauli, Bariarpur etc. were aimed at catering to Basic Learning Needs of the children, coupled with meeting their social and economic needs. The curricula,* therefore, took into consideration the basic profile of the children attending NFE centres as its background. Most of these children who were working either in organised or unorganised sectors, had missed entering the school or had dropped out of the school and somehow or the other were contributing towards family income directly or indirectly, with a result that their learning needs were slightly different in nature and dimension.

Because of this diversity in profiles of the learners, decentralised curriculum planning and development of teaching learning strategies and materials were experimented upon in the initial action research projects (Bhumidhar, Barauli, Bariarpur etc) undertaken by the NCERT. These experi ments were an attempt at decentralisation of primary education to the extent of developing instructional materials specific to the needs

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* Rawat, Ambasht, Daljit, Shah; Curriculum for Non-formal Education Centres for the Drop- outs and unenrolled children in the Age-Group 6-14 years, mimeographed; 1978.

of a village at the same time meeting the broad objectives as laid down in the national curriculum. Because of logistic reasons, this did not succeed. Attempts were made over the years to find some common learning needs which could form the core for all NFE learners as minimum. The adoption of NPE in 1986 enjoined upon the NFE the need of comparability in terms of terminal competencies with the formal system. Consequently the minimum levels of learning as developed and defined for the formal system, also became a parameter for NFE.

The terminal competencies for NFE, however, do not include, Art Education, Physical Education and Work Experience as subjects for learning, because of the obvious reasons of the children working in various situations, though these are essentially integrated in transactional methodologies.

The competencies as enunciated in the Minimum Levels of Learning with regard to language, EVS I and EVS II and Mathematics are the same for NFE too. The duration of NFE being much less than that of the formal education, its implications are far reaching in terms of instructional materials, teaching learning strategies and evaluation techniques.

The instructional materials have to take into account the terminal competencies as non-negotiable element and yet try to telescope various sequential competencies into a meaningful whole, or Unit thus compressing the time required for learning; take into

account the age group of the learners, who are around 9+ and, therefore, their pace of learning; single instructor situation; multi-ability group among the learners, etc.

The teaching learning strategies are also determined by the above factors. The emphasis on 'child-centred-learning' is, therefore, more pronounced in the approach of NFE.

Similarly evaluation techniques stress upon comprehensive and continuous evaluation and acquisition of mastery of each of the competencies. The duration of course is not sacrosanct but learning of the competencies is essential. At the end of NFE, the Programme of Action (1992), envisages that the child should be in a position to join the main stream of formal education system. Therefore, in terms of acquisition of the competencies he/she has to be at par with the child who has undergone formal education.

Language

At the end of the NFE the child, as in the formal education, is expected to be able to read, write and understand approx 5000 words; is able to read, write and understand small essays or dialogues or letters; use punctuation marks, can take dictation, read, write and speak correct sentences, essays, letters etc.; and read, understand simple poems etc.

All these competencies are the terminal competencies of formal education which are aimed to be achieved through NFE also.

Mathematics

In Mathematics, again like the formal education, the NFE child is expected to acquire the competencies as enumerated in the MLL at the primary level. The number and the number system upto one crore; addition, subtraction facts; multiplication; division; fraction, multiplication tables; use of decimal; LCM, GCM; addition, subtraction, multiplication and division of fractions; problems of daily life; calculations of interest, average, currency, length and weight, volume, areas and, the problems connected with these in every day life; time, percentage, and simple geometry and the inter relationship of geometrical forms, triangle, quadruangle, circle, etc are the competencies he/she is expected to master to be able to function effectively in the society and in personal life.

Environmental Studies I and II

In NFE Environmental Studies I (i.e. social studies) and II (i.e. science) are treated as an integrated area of study with specific emphasis to integrate it with language teaching also as far as possible. The concepts and the competencies are, once again, the same as in the

formal education. However, the child's specific experiences in the community and the environment as a worker help in acquisition or understanding of knowledge and skills rather quickly. The NFE covers, in an integrated manner EVS as a whole; Our body and its cleanliness; food and shelter; security and peaceful behaviour; prevention of common accidents; avoiding bad habits; our family and neighbourhood; civic amenities, our government; importance of the work of parents, family and members of society; product and produce; protection of our neighbourhood and environment; our district, state and nation; our country and world;our festivals; our ancesstors and evolution of man; our freedom struggle; social problems and their remedies; importance of health, environment; living and non living; observation of living and non living things; different states of matter; energy and work; our universe; kinds of soils and their fertility, conservation of soil etc.

These competencies are acquired many a times through common experiences of the child in day to day life and therefore, the learning strategies for these are very often experiential.

As indicated in the very beginning of this section, the teaching learning strategies, the evaluation techniques stress learning rather than teaching.

At the present, efforts are on in almost every State to develop suitable instructional materials in the light of these MLLs and in the light of the needs of the NFE. Almost every State has taken the MLL as the basic guidelines for meeting the learning needs of the children. The ten educationally backward States viz. Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh, West Bengal are involved in this exercise because the NFE as a centrally sponsored scheme is concentrating in these States on a large scale, although there are other areas where it is operative in certain pockets.

CHAPTER 4

CURRENT INNOVATIVE PRACTICES FOR ENHANCEMENT OF LEARNING ACHIEVEMENT

4.1 Introduction

India is a country of diversities-geographic, socio-economic and cultural. These diversities have contributed in a big way to uneven development in various fields including education. Imbalances in development have also been accentuated due to the federal system of government prevalent in India which provides freedom to the state governments to plan and implement developmental programmes as per their specific needs thus leading to differences in priorities. The vastness of the country adds to the complexity of problems which hinder the ultimate implementation of the policy enunciations at the national level. The nature and complexity of problems existing in the area of education thus call for a variety of approaches which can be designed through undertaking innovative/experimental programmes having potential for replication on a wider scale.

Innovations, both at micro and macro levels are needed in this country not only to answer the needs of diversity in problems of educational development but also for standardisation of learning levels. The transformation of teaching-learning practices at the school level can be affected only if alternative melthods of delivery system are generated and experiences are shared at different levels.

Over the years various innovative practices have been attempted to bring about qualitative improvement in primary education. These efforts have been made mainly through the governmental agencies at the national level and at the state level. A large number of programmes of curricular innovations have also been undertaken on a small scale through various non-governmental agencies working either at the state or the local levels.

There exists a network of organisations for implementation of educational reforms at National, State, District and Block levels and ultimately the level of primary school. Any innovation to take roots in the classroom practices therefore, has necessarily, to go through these levels, and it is essential that a two-way linkage for monitoring and evaluation is established among the different agencies to ascertain the effectiveness or otherwise of the innovative programme. In this chapter an attempt has been made to find out how the various innovative curricular reform programmes have contributed to enhance the learning achievemen of children in primary education in this country.

The current innovative programmes in the primary education have their roots in the innovative programmes initiated in the sixties and seventies and thus considered as fore runners for purposes of this study. The basic concerns, major strategies, acheivement and impact of the major innovations have been described in two sections:

Section-I Innovative Programmes-Forerunners.
Section-II Innovative Programmes-Current.

Detailed write-ups of the innovations referred to in the two sections are given in Appendices VIII A + VIII B.

Section I

4.2 Innovative Programmes-Fore-runners

The chapter 2 of this report has presented a review of the evolution of the concept of Basic Learning Needs, its historical perspective and current understanding in the context of Elementary Education in India. The major national programmes/projects which contributed towards the understanding of this concept both conceptually and operationally started rather early. But concerted efforts to bring about qualitative improvement in elementary education with substantial governmental support and international assistance through UNICEF and UNESCO started in late sixties.

In mid sixties a major innovation was initiated for improvement of science education, (Science Education Project (SEP) 1967-79). The major concern of this programme was to improve the content and process of science education. The result was development of an innovative curriculum package for popils, consisting of textbooks, guide materials for teachers, kits, films etc.; establishment of linkage between national level implementing agencies and state level agencies; training of key functionaries at state level; and establishment of State Institutes of Science Education (SISEs).

The Report of the Education Commission (1964-66) was the next milestone. The major recommendations of this commission stressed the need for improving the quality of curriculum to enhance the holding power of the school. To put these recommendations into action the document - 'The Curriculum For ten Year School - A Framework' (NCERT 1975) made recommendations which had far reaching implications for undertaking innovative curriculum renewal programmes. The salient features of the recommendations were:

- flexibility within a framework of acceptable principles and values;
- development of curriculum related to life, needs and aspirations of the people;
- development of rational outlook;
- concern for social justice, democratic values etc.

While efforts were on to review the existing curricula at the National and State levels to incorporate these concerns, attempts were also made to look for alternative approaches to curriculum planning and development processes. As a result a large number of curriculum reform programmes were initiated during the Fifth Five Year Plan (1974-78) and massive intervention programmes were undertaken in the area of Elementary Education. The areas of intervention included Early Childhood Care & Education (ECCE), Primary Education, Teacher Education, Non-formal Education. Following projects/programmes were implemented during this plan period by the Government of India with financial support from UNICEF:

- Continuation of Science Education Project (SEP) by expanding its scope to include health, nutrition, environmental sanitation and child care as a part of the curriculum.
- Primary Education Curriculum Renewal (PECR) - A long term activity for educational reform.
- Developmental Activities in Community Education and Participation (DACEP)
- Children's Media Laboratory (CML).

4.2.1 Concerns, Trends and Issues:

The first two projects i.e. Primary Education Curriculum Renewal (PECR) and Nutrition Health Education and Environmental Sanitation (NHEES) were intervention programmes largely in the formal system, whereas Developmental Activities in Community Education and Participation (DACEP) was addressed to the out-of-school children and community and catered to 0-35 years group. In the project PECR and NHEES the renewal efforts were directed towards designing locally relevant, flexible curriculum suited to the life needs and aspirations of diverse groups of children, especially, from the educationally and socially disadvantaged sections of the society. While Project PECR was addressed to the total curriculum, the project NHEES was restricted to empowering children with knowledge, understanding, skills, practices and values related to nutrition, health, education and environmental sanitation in order to improve their health status and qality of life and through children the health status of their parents. One of the significant innovative aspects of the project - NHEES was extensive intervention programmes with community members for imparting messages related to health, nutrition and environmental sanitation.

In all the above mentioned curriculum reform programmes some common trends emerged, which are:

- decentralisation of the process of curriculum planning, development of instructional materials and adoption of relevant and appropriate teaching learning strategies. The locally specific curricular content was drawn from the baseline survey of needs and resources of the local community of the project areas.
- equipping the child with the skills and competence of how to learn and continue to learn in future by directing the curriculum structure, content and methodology of transaction to the child and his/her adaptation to the environment both present and future.
- Continuous multi-way interaction between classroom teachers, teacher educators, curriculum planners and experts and making use of feedback for monitoring and evaluation and mid-term correction of implementation strategies.
- Making evaluation both of the programme as well as children's attainment a continuous in built component of the implementation strategy;
- Identification of a core of minimum essential competenies expected of all children by the end of the primary stage of education which was based not on the content but on the learning tools of a child;
- Provision of continuous improvement of teacher competence through in-service training.

4.2.2. Achievements

The project write-ups given in Appendix VIII A describe the major achievements of these projects. The most significant ones from the point of view of enhancement of learning achievements are:

- development and implementation of competency-based curriculum, teaching-learning strategies and evaluation techniques. The pupil achievement studies conducted under both PECR and NHEES have shown that classroom interventions have positive effect on pupil achievement (Dave, et.al 1988 NCERT, and Shukla Bhattacharya 1991, NCERT).
- identification of the minimum competencies expected to be attained by each child at primary stage. The document 'Minimum Learning continuum'(NCERT 1979) deveped under project PECR has been the basis of the formulation of Minimum Levels of Learning (MLL).

The above mentioned programmes/projects can be regarded as forerunners of the attempts initiated for the Universalistion of Elementary Education, (enhancement of learning achievement), since all these programmes/projects were addressed to the qualitative improvement of primary education. The main focus of these programmes was on flexibility, local specificity of the content and to a large extent participatory involvement in the curriculum development process, training and other implementation aspects. The functionaries of different levels of education

i.e. teachers in the primary schools; teacher educators in the teacher training institutions; supervisory staff; and, curriculum experts at the level of SCERTs and NCERT all participated in the curriculum renewal efforts, either in the formal primary schools or in the non-formal learning centres.

In 1979-80 certain other Innovative Programmes were initiated in the country which primarily focussed on teacher education and development of learner based materials for non-formal education. Comprehensive Access to Primary Education (CAPE) is one such programme. The main objective of this programme was to evolve flexible, problem centred and work based decentralized curricula and learning materials relevant to the needs of the children from underserved sections of the society. Further, the innovative aspect was the involvement of teacher trainees in the development of relevant problem centred learning materials. In this endeavour training-cum-production mode was applied.

Section II

4.3 Innovative Practices: Current

The innovative curriculum reform programmes referred to in the earlier section and also the nationwide awareness for quality improvement of primary education to enhance the two-fold objective of universal retention and universal achievement, set the scene for examining the curriculum of primary education in much more detail. The efforts also helped in identifying certain other components which would enhance the learning achievement of children.

Another important contribution of these programmes was that the experiences gained were utilized in the formulation of National Policy of Education 1986 (Revised 1992). The important policy resolutions of the NPE-86 and their implications for meeting the basic learning needs have already been discussed in Chapter-2.

The National Policy on Education, 1986 gave unqualified priority to the programme of Universalisation of Elementary Education (UEE). The most significant policy enunciation was the identification/laying down of Minimum Levels of Learning (MLL) for all stages of school education. These have been discussed in detail in Chapter-2. Some of the thrust areas emphasised in the policy and subsequent Programme of Action (POA) which have bearing on enhancing the learning achievement of children are as follows:

- shift in emphasis from universal enrolment per se to universal retention, thus there is more focus on improvement of curriculum transaction modes and evaluation
- adoption of microplanning approach for human resource development at grassroot level to ensure participation and retention of children till they complete five years of schooling either through formal school system, or alternatively, through non-formal education programmes.
- advocating participatory planning by teachers and community in ensuring regular attendance of children.
- providing equal access to primary education to all categories including underserved sections of the

society both in terms of the content and process of education and resorting to alternate modes and methodology of delivery system-formal, non-formal, own time etc.

- providing substantial improvement in the school environment, buildings, teachers, teaching learning materials through the scheme of Operation Blackboard.
- adopting child-centred activity based approach for curriculum transaction.
- restructuring the teacher education programmes both at the pre-service and in-service level in order to improve teacher competence and enhance quality of curriculum transaction.
- providing access to education to unreached children, especially, girls and working children through systematic programme of non-formal education as integral component of UEE programmes.
- providing flexibility in terms of selection of content, teaching learning strategies and learning experience to enable the children to learn at their own pace at the same time acquiring learning competence of comparable quality.

In the revised POA (1992) these thrust areas have been reiterated and further modifications have been suggested, especially in the NFE scheme and in the scheme of Operation Blackboard.

The concerns expressed above led to the undertaking of a number of innovative programmes both at the central and the state levels. The major programmes initiated at the national level are:

- Early Childhood Care and Education (ECCE)
- Project Integrated Education for Disabled (PIED).
- Multisite Action Research Project (MARP)
- Area Intensive Education for Human Resource Development (AIEP)
- Operation Blackboard.

Detailed write ups on the programmes/schemes describing the need, objectives, coverage and achievements are given in Appendix VIIIB.

The main focus of these programmes/schemes has been on

- strenthening the primary education programmes
- providing access to primary education to children who are still out of regular school system such as girls, working children, and disabled children.
- expanding the scope of primary education to cover all age-groups including youth and adults.
- planning educational programmes at micro-level to cater to the needs of the local community
- adopting multi-sectoral approach for total development including education
- creating congenial and pleasant environment in school to enhance participation and learning achievement of children through providing essential facilities.
- eliciting cummunity participation and resource mobilisation.

While the above are a few significant innovations tried out with central initiatives in the areas of equal access to educational opportunity and its quality improvement, there are few more innovations that were initiated during this period at the state and macro-levels. A few significant ones are:

- Bihar Education Project (BEP),
- Shiksha Karmi Project (SKP),
- Andhra Pradesh Primary Education Project (APPED),
- Lok Jumbish (LJ).

All these projects are collaborative projects of the central and state governments and are also partly funded by various international agencies. (Details of these innovations are provided in Appendix VIII B). Apart from the innovations reported above, a large number of other projects/programmes are at planning stage. The major ones are 'Education For All' project in uttar Pradesh being funded by World Bank and UNDP Supported project in Orissa.

some of the significant features of these innovations are the focus on:

- decentralisation in curriculum planning and implementation
- creation of infrastructure at local level/empowering local bodies to control and supervise the implementation of programmes.

- flexibility in designing the programmes for providing conducive learning environment, improved teacher competence, innovative modes of curriculum transaction and evaluation.
- community participation and resource mobilization.
- provision of facilities for training/orientation of personnel/teachers involved, at short intervals
- adoption of inter-sectoral approach for educational development
- emphasis on ECCE programmes for strengthening the school education programmes
- adoption of 'mission mode' to spread the message and thus creating conducive environment for attaining the targets of universalisation of elementary education
- emphasis on education of girls and women and bringing about a social change by empowering them.

The above features indicate a shift in the responsiblity of primary education to the local community rather than totally depending on the government controlled bodies to take every decision including the content and processes of education

Another shift that is evident is the emphasis on the learning outcomes rather than on the coverage of the content.

The positive trends are evident from the following three studies conducted by different agencies.

(a) A study conducted by NCERT to evaluate the impact of the ECCE programmes indicates increase in the retention rate of children in primary stage of education.

(b) A Study conducted by a team of researchers entitled 'Assessment of Children's Achievement'* under Shiksha Karmi Project and, mid-term assessment of the APPEP** have also indicated a positive difference in children's attainment as a result of various interventions.

However the exact extent to which all the these innovative programmes will ultimately help in meeting the basic learning needs and enhance the learning achievement of children will be judged only when they are fully implemented and some evaluation studies are undertaken thereafter.

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* Anandalakshmy's et al; Assessment of Children's Achievement', Shiksha Karmi Project in Rajasthan, presented in a seminar held at I.I.C, New Delhi on Dec. 2-3, 1990.

** "Andhra Pradesh Primary Education Project : Salient Feetures" and Andhra Pradesh Primary School Project - Approach Paper on Phase II.

CHAPTER - 5

FRAMEWORK FOR ENHANCING LEARNING ACHIEVEMENT OF CHILDREN IN PRIMARY EDUCATION

Current primary education curricula, obtaining in India, have been examined for their relevance and appropriateness in meeting basic learning needs of children. The potential of various innovative programmes, materials and methods have also been ascertained for their contribution towards enhancing learners' achievement. Now it remains to be seen how effectively these two exercises could be utilized for enhancing learning achievement of primary school children both in formal and non-formal streams, which in turn call for a framework to be recommended to the educational practitioners, educational planners and administrators on one hand, and educational researchers, teacher educators and developers of instructional materials on the other. Taking advantage of the inputs of the previous chapters in this report the following framework is presented.

5.1 Findings of Analysis of Curricula

1. Minimum Levels of Learning laid down at National level and State level are by and large similar except some variations in the extent of attainment of some competencies/MLOs.

2. Subject areas' content, teaching - learning strategies and evaluation techniques recommended are similar except in depth of the content in some cases, Health

Education is not a subject area in U.P Various components of this area are reflected in other subjects also such as EVS II and Language.

3. Teaching-Learning strategies and evaluation techniques have not been specified in most of the State curricula.

4. Common core components envisaged as non-negotiable at National Level are not evident in State curricula except the one on 'History of India's Freedom Movement'and 'Protection of Environment'. Only one state (Meghalaya) lists these components in the introductory part of its document on curriculum.

5. Trends evident in different current innovative programmes are that better physical facilities, continuous orientation of teachers, involvement of local community/bodies have positive impact on learning achievement.

6. Mission Mode for UEE as one of the strategies is being tried out through involvement of all categories of developmental agencies (govt./non-govt.), all kinds of institutions (educational and administrative, social welfare) teachers and community.

7. Microplanning for reaching the unreached children is being adopted for greater effectiveness.

8. Integrating Early Childhood Care and Education with the efforts of Universal Primary Education is the current trend.

5.2 Basic Considerations for the Framework for Enhancing Learning Achievement at Primary Stage.

While attempting to develop a framework for enhancing learning achievement at primary stage in India following considerations are necessary:

i) India is a vast country comprising a very large clientele of primary stage children spread over the whole geographical region with varying socio- emic and ethnic groups.

ii) Some framework in the form of curricula exists and it needs to be reviewed and augmented to enhace learning achievement.

iii) Mininum Levels of Learning as envisaged at the national level are presumably commensurate with the basic learning needs of children in the country.

iv) The Minimum Levels of Learning (MMLs) are expected to be attained by all children and, therefore, different strategies comprising a variety of transactional methods and evaluation procedues need to be evolved so as to cater to the basic learning needs of all children.

v) Experimentation, planning and research activities would need to be undertaken both at micro and macro levels.

5.3 Developing the Framework

5.3.1 The Present Situation

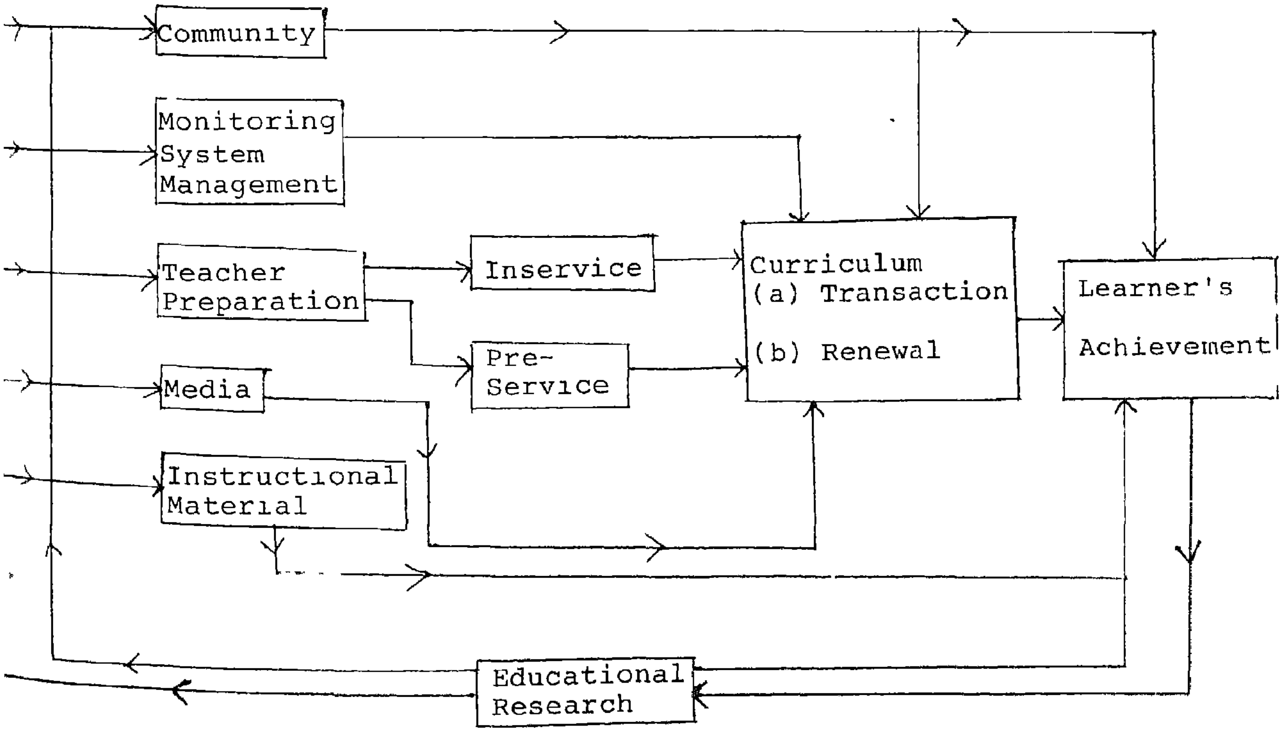
Universalisation of Primary Education stands as one of the important national commitment as enshrined in the Article 45 of the Indian Constitution. The target set for its accomplishment is now 2000 A.D. Accordingly, various attempts have been made to ensure universal enrolment 'and universal retention of children and, significant success has been achieved through formal and non-formal education systems. Universal attainment, however, remains to be sought as yet. Identification of Minimum Levels of Learning on the basis of background researches and subsequent wide ranging discussions with the practitioners and experts is a landmark towards realisation of the goal of Universalization of Primary Education. Besides fifteen voluntary organisations/groups/individuals trying to implement MLLs programme, the NCERT has been making concerted efforts in both the fields, namely, formal and non-formal education of children. Regarding formal school system NCERT has launched its MLLs programme in four blocks one each from four educationally backward states. Teachers' handbooks to serve as 'companion' to teachers have been developed for standards I to V. Teacher training and orientation of headmasters and supervisory staff are conducted through a team of local resource persons in collaboration with NCERT Faculty. With regard to the Non-Formal Education, the MLLs have been integrated in the subject areas so as to suit the NFE pattern. Micro planning has been attempted at a standard

equivalent to class III in terms of materials and approach. In brief, a multi-pronged approach has been adopted ensuring the attainment of MLLs and hence enhancing learning achievement of children at primary stage.

5.3.2 The Framework : Thrust Areas

The framework for enhancing learning achievement of children revolves round the thrust areas of curriculum renewal, teacher preparation (pre-service and in-service), development of instructional materials for teachers and learners, transactional strategies, evaluation techniques monitoring mechanism, community support and educational research.

5.3.3 Paradigm for Enhancing Learner's Achievement.



The interlinkage between different sectors of educational activity, and the beneficiary groups can be seen in the paradigm. The networking has to be clearly established and each component has to play its part effectively so as to make the system work. These interlinkings are so intrinsic to each component that any weakness in any of these has a multiplier effect on the other leading to multiplied weaknesses in the system as a whole. The framework has, therefore to take into account the holistic approach in order to be effective.

5.3.4 Curriculum Renewal

Curriculum development is a dynamic and on-going process. The system has to carefully watch the attainability of the stated MLLs by children. The results should lead to the modification of MLLs for various groups of the students' population. These need to be updated in view of the social, political and economic changes taking place from time to time. Research inputs need to be provided to the curriculum renewal exercises. To suggest a few, a series of micro level studies to identify curriculum demands; studies in dovetailing these within the MLL framework; linkages of transactional methodology(ies) with the curricular intentions etc.

5.3.5 Teacher Preparation

Teacher plays an important role in helping children to meet their learning needs. Training of teachers both, preservice and inservice, assumes greater significance with

regard to enhancing learners' achievement. India has sufficient facilities for preservice and inservice training of teachers, especially after the establishment of DIETs. But the training programmes need to be revamped so as to equip the existing teachers and pupil teachers with content and pedagogical capabilities required to achieve the goal of enhancing learner's achievement at primary stage of education. The following actions need to be undertaken in this regard:

i) Theoretical knowledge and insights to which the trainees are to be exposed during pre-service education programme should be related directly to actual practices obtaining in educational settings with special emphasis on making children willing and keen learners.

ii) Curriculum of pre-service training programmes should be modified to incorporate the MLLs and strategies for ensuring their attainment by the learners. For this, advantage may be derived from field experiences and suitably designed research studies.

iii) Existing teacher force may be provided with recurrent training and followup programmes on regular intervals so as to update their knowledge of content and pedagogy. A system would, therefore, need to be developed to meet this objective. Institutions like DIETs (District Institutes of Education & Training) engaged in inservice training of teachers need to be strengthened by meeting to their requirements of trained manpower, material and support.

iv) Teacher Resource Centres at the block level may have to be established as sub-units of the DIETs where the primary school teachers could meet every month to exchange and update their competencies. It is necessary for logistic reasons.

v) The efforts of these institutions (DIETs) may be further supplemented by using distance learning mode utilizing both print and non print media. Concerted efforts would therefore need to be made to develop such media as to cover all teachers involved in teaching at primary stage.

5.3.6 Development of Instructional Material for Teachers' and Learners.

Achievement of learners depends largely on the quality of instructional materials made available to them and to the teachers. Accordingly good quality textbooks, supplementary books, work books, and other activity based games etc. need to be developed for teachers as per the needs of various groups of learners. Teachers may be provided with Handbooks as companions to them, which they should consult while transacting teaching learning activities. They also need training in development of needbased low cost or no cost teaching aids. Besides this, efforts should also be made to develop capability amongst teachers to generate their own competency based test items which could be used for diagnostic purpose and remedial teaching threby enhancing learner's achievement.

With a view to catering to the learning needs of primary stage children, teaching-learning strategies should comprise time tested and well conceived approaches. In India, the NCERT is implementing the MLLs programme, effectively using the following techniques:

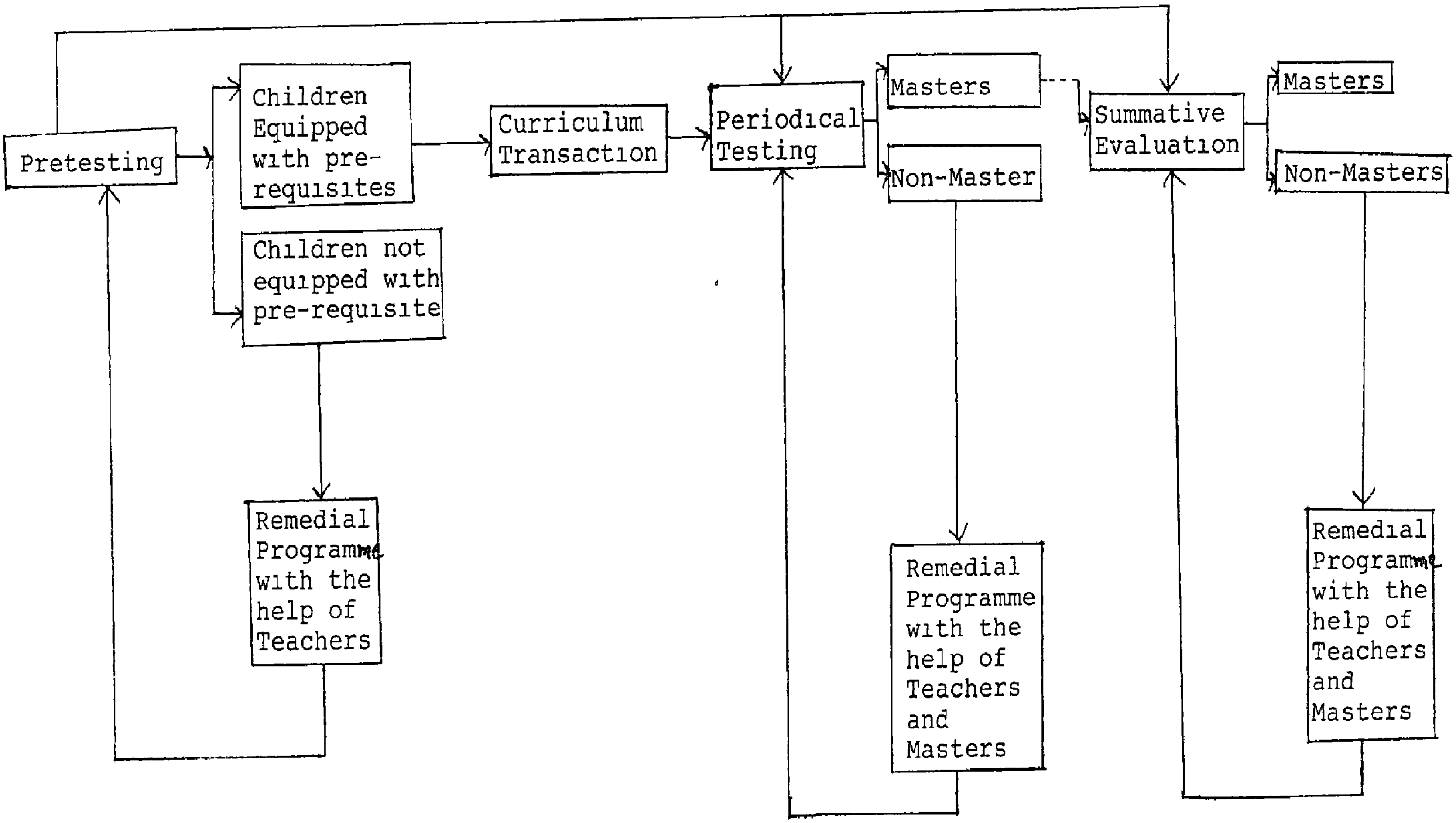
- Mastery Learning approach
- Continuous and comprehensive evaluation
- Diagnostic and Remedial Teaching
- Activity based and child centred approach of transaction
- Action Research

As such one has to start with the assessment of children with regard to their present status and their readiness to learn. These Entry level tests would give insight to practising teachers about some induction programme, even before beginning the real instruction. Children's progress should be monitored through continuous and comprehensive evaluation results of which should be utilized for diagnosing the hard spots of learning and undertaking remedial measures. Activity based and child centred methods may prove helpful in arousing and maintaining interest among children. Teachers may be encouraged to undertake action research project to improve upon their practices to enhance achievement level of learners. This approach may be given a fair trial and its results may be analysed under a suitably planned research project for wider application.

5.3.7 Evaluation Approach

Children grow in both cognitive and non cognitive areas of development. It is the evaluation which provides substance for prognosis, diagnosis and research. Hence evaluation system should encompass both the dimensions. Besides this, evaluation has to be integrated with teaching on a very regular basis. A sound programme of continuous and comprehensive evaluation should therefore be evolved and teachers trained in that. It should find significant coverage in teacher's handbooks and in teacher development programmes. A model of continuous and comprehensive evaluation incorporated in the MLLs implementation programme of NCERT is reproduced which may be tried as part of research design. Minor modifications may then be made so as to suit local requirements.

Continuous and Comprehensive Evaluation *


Pretesting
Children Equipped with pre-requisites
Children not equipped with pre-requisite
Remedial Programme with the help of Teachers
Curriculum Transaction
Periodical Testing
Masters
Non-Master
Remedial Programme with the help of Teachers and Masters
Summative Evaluation
Masters
Non-Masters
Remedial Programme with the help of Teachers and Masters

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* Prakash, V. Towards Enhancing Quality of Primary Education - Minimum Levels of Learning Approach. Jounnal of Indian Education, 1992 Vol. 18, No.4.

5.3.8 Monitoring Mechanism

It is, of course, true with educational programmes as well that good management leads to better results. While implementing a programme on large scale involving primary stage teachers for enhancing learner's achievement, it needs to be monitored properly. There are three categories of personnel besides teachers who need to be trained properly so as to make them, functional and supportive to the programme aimed at enhacing learner's achievement. These groups are:

- Supervisory staff related to primary education
- Head Masters of Primary Schools.
- Resource persons comprising personnel from SCERTs/SIERTs, DIETs, Head Masters and lead teachers.

A system of interaction with the teachers on regular intervals of time to thrash out and solve their practical on-the job problems needs to be developed. Various modes may be tried and their effectiveness studied. Some suggested mechanisms are as under:

(a) Monthly meetings of teachers and members of resource team to discuss progress, problems and results of various evaluations.

(b) Weekly meetings of teachers and headmasters in small clusters of schools.

(c) Recurrent training of teachers and discussion on various assessment results.

5.3.9 Community Support

Support of society in general and parents in particular may be sought to assist the efforts of teachers and the school system with a specific objective of improving children's performance. In India a large section of parents do not take much interest in their children's education. Also, the school is considered to be the sole responsibility of the government. It is very rare that community members feel concerned about the school activities. It is, therefore, desirable to generate a mass consciousness among the community about the need of education and their role in educational efforts through multipronged approach. There seems to be an urgent need for developing video programmes and other kinds of awareness package to seek parental involvement in educational process of young children*.

5.3.10 Educational Research

Educational research should be intimately linked with the theory and practice of education. If learner's achievement is to be enhanced, various content, methods and evaluation strategies need to be tried on various groups of children. Discussions in the preceding paragraphs give rise to various research questions which may be answered by suitably planned educational research, which may be supported by national and international agencies in the interest of enhancing learners achievement in India at primary stage.

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* Community's participation in educational efforts have been realised at the national level and it has found expression rather emphatically. Establishment of Village Education Communittee and involvement of Panchayats in the educational reconstruction has been highlighted in the POA (1992). However, there is need for purssing this policy with vigour.

1. a) Is curriculum available with the teachers?
   b) Do the instructional materials reflect the curricular concerns ?
2. Are instructional materials available with the learners ?
3. Are the teaching-learning processes described in the curricula being followed ? Are the teachers equipped to handle the curriculum effectively ?
4. Are the evaluation methods suggested in the curricula being followed ?
5. Are the remedial actions suggested in the curricula being taken ?
6. Are the children achieving the learning levels with certain degree of Mastery ?
7. Is learning achievement being assessed properly ?
8. Is proper monitoring of the children's progress of teaching-learning processes in the school being done?

9. Is the wherewithal for the delivery system available with the schools ?
10. Has the paradigm suggested some relevance to the enhancement of learners achievement ?
11. Are the approaches listed out in this chapter useful in enhancing learner's achievement ? If so, to what extent and in which types of learner's groups ?
12. What kind of monitoring system yields better learner's achievement ?
13. What is the effectiveness of parental awareness programmes in enhancing learners attainment ?
14. What is the effectiveness of inservice teacher

training programmes and teacher support materials in enhancing learner's achievement ?

15. Which are the appropriate evaluation techniques to ensure better achievement of learners ?
16. What is the utility of selected innovative practices vis-a-vis learner's achievement ?

5.4 Some Suggestions:

The framework for enhancing learner's achievement should be carried out keeping the following suggestions in mind:

1. Efforts should be made to contain teacher's/pupils absenteeism.
2. Number of working days in school should be increased (from 220 days to 270 days in a year) and the school environment should be made as attractive as possible.
3. Primary school teachers are assigned a variety of duties other than their school work. Their work needs to be rationalized and they may be allowed to attend to the work primarily allocated for them. Their transfer policy also needs to be rationalized.
4. Teachers must be trained in multigrade teaching so as to carry out the job as long as Indian schools do not have one teacher per class.
5. Basic physical and infrastructural facilities be ensured in the schools.
6. A code may be developed specifying the duties and responsibilities of the personnel involved in primary education, which should be followed in all sincerity so as to attain the target of universal attainment.

7. Various sectors should be mobilised to contribute to the educational endeavour to help increase its effectiveness.
8. Proper mechanisms should be developed for participatory evaluation of teacher's work and evolving appropriate incentive and disincentive schemes.
9. Mission mode, as recommended in POA-1992 may be tried out through involvement of all categories of developmental agencies (govt./non-govt.) and all kinds of institutions (educational, developmental and social welfare).

In the end it would be worthwhile to mention that the area of enhancing learner's achievement is yet to be given top priority in the whole gamut of educational scenario in India. There is ample scope for undertaking research, development, training and extension activities wherein the suggested framework may be tried out and applicability of innovative programmes tested. Needless to say, that answers to various research questions enumerated in the context of this report should be obtained through systematic research which would in turn provide various action points in so far as enhancing learner's achievement is concerned.

It should be possible to undertake macro and micro level research studies for investigating various issues for which action may be initiated if suitable fundings are provided keeping in view the magnitude of the task.

APPENDIX I

Addresses of Agencies Implementing Minimum Levels of Learning

1. Dr. H.P. Rajguru
45, Roopram Nagar
Maruk Bag
Indore (M.P.)

2. Prof. S.N. Tripathi
Sanskar Shiksha Samiti
151, Aradhana Nagar
Katra Sultanabad
Bhopal-462 003

3. Dy. Director
S.I.E.R.T.
Udaipur

4. Prof. P.G. Patel
Prof. of Education
Shikshan Maha Vidayalaya
Gujarat Vidyapeeth
Ahmedabad

5. I/C. MLL
Gujarat State Crime Prevention Trust
Ashiwad, 9/B, Keshav Nagar
Near Subash Bridge
Ahmedabad-380 027

6. I/C. MLL
Bombay Municipal Corporation
Education Department,
L.N. Road, Dadar East
Bombay

7. I/c. MLL
Institute of Social and Economic Change
Nagarbhavi
Bangalore-560 072

8. Prof. J.N. Joshi
   Head of the Deptt. of Education
   Punjab University
   Chandigarh

9. Dr. John Kurien
   Centre for Learning Resources
   B-210, Boad Club Road,
   Pune

10. Indian Institute of Education
    J.P. Naik Path,
    128/2, Kothrud
    Pune-411 029

11. I/c. MLL
    Shree Palanpur Shishushala
    Balmandir & Education Trust
    Palanpur-385 001
    (Gujarat)

12. Gram Vikash Trust
    Rupapur Chanasma
    Distt. Mehsana
    (Gujarat)

APPENDIX II

Basic Learning Needs - Language

S.No.	Minimum Levels of Learning National Level	Delhi 1	Karnataka 2	Kerala 3	Maharashtra 4	Meghalaya 5	Rajasthan 6	U.P. 7
1.	acquire vocabulary of approx.5000 words out of which 2000 words should be an active vocabulary.	3000 words	not indicated	not available	X	X	not indicated	X
2.	receive incoming communications such as commands, instructions, directions, explanations, and information such as news on radio and television etc.	✓	X		✓	✓		✓
3.	assimilate incoming communications in a variety of forms such as teacher's presentations, speeches, recitations, skits, narrations, poems, plays, essays etc. using the known words and sentences/structures/patterns/usages learned.	✓	✓		✓	✓	✓	✓

		1	2	3	4	5	6	7
4.	develop good listening habits and attitudes such as being attentive, reacting with appropriate gestures, postures, facial expressions, nodding actively participating while conversing.	✓	✓		✓	✓	✓	✓
5.	reproduce accurately sounds of all single and combined letters; words, structures and phrases using the vocabulary learned.	✓	✓		✓	✓	✓	✓
6.	converse and discuss with peers, elders, strangers using appropriate language	✓	✓	not available	✓	✓	not specified	✓
7	give directions, instructions, commands, explanations, recitations; make short introductions, speeches, announcements.	✓	✓		✓	✓	✓	✓

		1	2	3	4	5	6	7
8.	Participate in discussions; play small roles, dramatise events, articulate, enunciate with correct pronunciation, using appropriate tone, pitch, emphasis, accent, loudness and feelings.	✓	✓		✓	✓	✓	✓
9.	grasp the most important points relevant for recall later from various incoming communications.	X	X		X	✓	X	✓
10.	know printed visual symbols of language, viz. letters, words, punctuations.	✓	✓		✓	✓	✓	✓
11.	read print and handwritten material	✓	✓	Not available	✓	✓	✓	✓
12	develop coordination of eye movements from left to right or right to left (in the case of Urdu) to follow the printed symbols.		X		X	X	X	

		1	2	3	4	5	6	7
13.	develop rapid reading dictionary and encyclopaedia skills	✓	✗	Not available	✓	✗	✗	
14.	analyse and assimilate informal written communications such as directions, instructions, guidance given at public places, viz., railway/bus stations, public offices, various kinds of items in the newspapers such as advertisements, news, etc.	✓	not specified		✗	✗	✓	✓
15.	develop coordination between eyes movements and small muscles of the body, particularly of hands.	✗	✗		✗	✗	✓	✗
16.	re-write visual printed symbols, forms of letters, words and structures accurately, legibly and neatly with correct format and spacing.	✓	✓		✓	✓	✓	✓
17.	take dictation with all punctuation marks.	✗	✗		✗	✗	✗	✗

	1	2	3	4	5	6	7
18. use meaningfully the known vocabulary in short compositions, like descriptions of things and objects around narrations of incidents, events, simple compositions, reports, stories, poems, skits, plays, travelogues and essays.	✓	✓		✓	✓	✓	✓
			Telugu Hindi Marathi English		Marathi Kannada Gujarati English Urdu Sindhi		

Content-Language

S No.	Content	Delhi	Karnataka	Kerala	Maharshtra	Meghalaya	Rajsthan	U.P
1	Listening Comprehension + Oral Expression	✓	✓		✓	✓	✓	✓
2	Reading Comprehension	✓	✓		✓	✓	✓	✓
3.	Written Expression	✓	✓		✓	✓	✓	✓
4.	Common Care Components	not specified	not specified	not available	not specified	not specified	not specified	not specified

Transactional Strategies - Language

S.No.	States	Approach	Methods/Teachniques						
A.	National Level	Child-Centred activity based	Games Play 1	Recitation 2	Role Play 3	Dialogue Discussion 4	Dramatisation 5	Field visit 6	Oral Questions 7
1.	Delhi	Not specified							
2.	Karnataka								
3.	Kerala		✓	✓		✓	✓	✓	
4.	Maharashtra	Child Centred Activity based	Process based teaching						
5.	Meghalaya *	Child Centred Activity based	questioning picture reading	Lecture	✓	✓			✓
6.	Rajasthan	Not specified							
7.	Uttar Pradesh			✓		✓			

* oral questions, observation, check-lists

Evaluation Techniques - Language

		Approach	Teachniques				
S.No.	National Level	Continuous and Comprehensive	Diagnostic Tests and remedial teaching 1	Performance test oral/ written 2	Daily assignments 3	Observation structured/ informal 4	Record keeping 5
1.	Delhi	not specified					
2.	Karnataka	✓	✓		Written Assignment		
3.	Kerala						
4.	Maharashtra	✓	Oral	✓			
5.	Meghalaya		✓	✓			
6	Rajasthan	Not specified					
7.	Uttar Pradesh			✓		✓	

APPENDIX III

Basic Learning Needs -Mathematics

S.No.	Minimum Levels of Learning National Level	Delhi 1	Karnatka 2 (V-IV)	Kerala 3	Maharashtra 4	Meghalaya 5 (I-IV)	Rajasthan 6	U P 7
1.	Know and understand number and numerals upto 1,00,00,000 (one crore)	✓	upto one lakh	✓	✓	upto one lakh	✓	✓
2.	know and understand place value of a digit in a numeral upto 9,99,999	✓	✓	✓	✓	✓	upto one crore	upto one crore
3.	use decimals through .000s.	✓	✓	✓	✓	✓		
4.	know basic addition and subtraction operations	✓	✓	✓	✓	✓		
5.	develop skills in addition, subtraction, multiplication and division in respect of whole numbers (the sum not exceed 9,99,999 in the case of addition and subtraction; product/dividend not to exceed 9,99,999 and multiplier not to exceed 999 in the case of multiplication and divisor not to exceed 99 in respect of fractional numbers expressed as fractions and decimals.	✓	Add & Sub upto 5 digits ✓	✓	Add.& Sub upto 8 digits ✓	Add & Sub upto 99,999 ✓	Add & Sub upto 5 digits Multiplier & Divisor upto 3 digits	Add & Sub upto 99,99,999 ✓

		1	2	3	4	5	6	7
6.	develop concepts and apply computational skills acquired in respect of whole numbers and in respect of fractional numbers expressed as fractions and decimals in the area of measurement, viz. length, mass, capacity, area, volume, time, money and temperature.	✓	only length to money	✓	✓	✓	✓	✓
7.	understand relationships among various two and three dimensional shapes; and their properties.	✓	✓	✓	✓	✓	✓	✓
8.	develop the concept of percentage and use symbol % and related skills of computation.	✓	✗	✓	✓	✗	✓	✓
9.	solve quantitative problems related to real life situations by making use of concepts and skills relating to numbers, measures and mathematical relationships.	✓	✓	✓	✓	✓	✓	✓
10.	develop good working habits such as accuracy in performing arithmetical operations, systematic and orderly approach to solving problems, and mastering every operation of the task at hand.	✓	✓	✓	✓	✓	✓	✓

		1	2	3	4	5	6	7
11.	express a desire for acquiring further mathematics knowledge.	✓	✓	✓	✓	✓	✓	✓
12.	enjoy dealing with numbers and solving puzzles and participate in various forms of recreational mathematics.	✓	✗	✗	✗	✗	✗	✗
13.	appreciate the importance and application of mathematics in solving problems in day-to-day real life situations.	✓	✓	✓	✓	✓	✓	✓

Content - Mathematics

S.No.	Content Area	Delhi 1	Karnatka 2	Kerala 3	Maharashtra 4	Meghalaya 5	Rajasthan 6	U.P. 7
1.	Sizes, lengths, shapes, positions.	✓	✓	✓	✓	✓	✓	✓
2.	numbers and numerals	✓	✓	✓	✓	✓	✓	✓
3.	Addition, subtraction, Multiplication, Division of numbers	✓	✓	✓	✓	✓	✓	✓
4.	Fractional Numbers	✓	✓	✓	✓	✓	✓	✓
5.	Geometrical shapes	✓	✓	✓	✓	✓	✓	✓
6.	Measures of length, mass, capacity	✓	✓	✓	✓	✓	✓	✓
7.	Money	✓	✓	✓	✓	✓	✓	✓
8.	Time	✓	✓	✓	✓	✓	✓	✓
9.	Decimals	✓	✓	✓	✓	✓	✓	✓
10.	Line segments	✓	✓	✓	✓	✓	✓	✓

		1	2	3	4	5	6	7
11.	Perimeter	✓	✓	✓	✓	✓	✓	✓
12.	Circles	✓	✓	✓	✓	✓	✓	✓
13	Angles, circles, triangle	✓	✓	✓	✓	✓	✓	✓
14.	Areas	✓	✓	✓	✓	✓	✓	✓
15	Volumes	✓	✓	✓	✓	✓	✓	✓
16.	Simple interest	✓	✓	✓	✓	✓	✓	✓
17.	Profit and loss	✓	✓	✓	✓	✓	✓	✓
18.	Temperature	✓	✓	✓	✓	✓	✓	✓

Transactional Strategies -Mathematics

S.No	States/Techniques	Child Centred	Activity Centred	Competency Based	Drill	Process oriented	Problem Solving	Remarks
A	National Level	✓	✓	✓				
1.	Delhi							
2.	Karnataka	✓	✓		✓			
3.	Kerala	✓	✓	✓		✓		
4.	Maharashtra	✓	✓					
5.	Meghalaya			✓	✓			
6	Rajasthan	✓	✓				✓	
7.	Uttar Pradesh			✓				Details are not availabl

Evaluation Techniques

S.NO.		Approach	Tests		Techniques		
A.	National Level	Continuous Comprehensive Evaluation	Oral 1	Written 2	Performance/ practical 3	Diagnostic and remedial 4	Remarks 5
1.	Delhi	✓		✓	✓		
2.	Karnataka		✓	✓			
3.	Kerala	✓	✓	✓	✓	✓	
4.	Maharashtra	✓	✓	✓		✓	
5.	Meghalaya		✓	✓	✓	✓	
6.	Rajasthan		✓	✓	✓		
7.	Uttar Pradesh						Not mentioned in the curriculum

APPENDIX IV

Basic Learning Needs - Environmental I & II

S.No.	Minimum Levels of Learning National Level	Delhi 1	Karnataka 2	Kerala 3	Maharashtra 4	Meghalaya 5	Rajasthan 6	U.P. 7
1.	know basic facts and information about the immediate social and natural environment such as different people, institutions, means of transport and communication, flora and fauna, natural resources.	✓	✓	✓	✓		✓	✓
2.	understand the process or origin of happenings/events taking place in the world around.	✓	✓	not specified	X		✓	X
3.	develop norms and modes of behaviour that are consistent with the values enshrined in the constitution of the country such as the democratic way of life, national identity, equal rights and responsibilities, respect for others' religion and way of life, concern for other, cooperation.	✓	not specified	not specified	✓		✓	✓

		1	2	3	4	5	6	7
4.	understand India's rich cultural heritage which is essentially a mixture of many races and people.	✓	✓	✓	✓		✓	✓
5.	appreciate cultural and ethnic similarities and differences and diversities, contributions made by Indians belonging to each of the regions, races and speaking different languages.	✓	✓	✓	✓		✓	✓
6.	know basic facts and information about the human body and its growth and development.	✓	✓	✓	✓	✓	✓	✓
7.	understand the functions of various parts of the human body.	✓	✓	✓	✓	✓	✓	✓
8.	understand the need for keeping the body and environment clean, healthy and disease-free, particularly those which are area-specific.	✓	✓	✓	✓	✓	✓	✓
9.	develop good and healthy habits for improving one's own quality of life such as maintenace of personal health, care of the eyes, ears, nose, teeth, etc. for prevention and control of accidents and disabilities.	✓	✓	✓	✓	✓	✓	✓

		1	2	3	4	5	6	7
10.	appreciate the interdependence of man and nature-flora and fauna and therefore, the need for protecting and conserving the environment.	✓	not specified	✓	not specified	not specified	✓	
11.	know the basic facts and understand the basic concepts of science through the environment.	✓	✓	✓	✓	✓	✓	
12.	perform experiments to verify underlying principles, processes and methods of science.	✓	✓	✓	✓	✓	✓	
13.	apply the knowledge of concepts, principles, processes, methods learned to solve academic and day-to-day life problems for improving the quality of life of the individual, the family and the community.	✓	not specified	✗	not specified	✗	✓	
14.	develop interest in and appreciation of contributions that science and technology have made to improve life.	✓	✓	not specified	not specified	not specified	✓	
15.	develop attitudes and values such as objectivity, precision, critical thinking, goal directedness etc.	✓	not specified	not specified	✓	✗	✓	✓

Environmental Studies I & II - Content

S.No.		Delhi 1	Karnataka 2	Kerala 3	Maharashtra 4	Meghalaya 5	Rajasthan 6	U.P 7
1.	Human Body	✓	✓		✓	✓	✓	✓
2.	Family	✓	✓		✓	✓	✓	✓
3.	Houses	✓	✓		✓	✓	✓	✓
4.	School	✓	✓		✓	✓	✓	✓
5.	Neighbourhood (Natural Surounding)	✓	✓		✓	✓	✓	✓
6.	Plants in Neighbourhood	✓	✓		✓	✓	✓	✓
7.	Places/Institutions of Importance	✓	✓		✓	✓	(relegious) ✓	✓
7b.	Occupations	✓	✓		✓	✓	✓	✓
8.	Transport	✓	✓		✓	✓	✓	✓
9.	Earth	✓	✓		✓	✓	✓	✓
10.	The Sky	✓	✓		✓	✓	✓	✓
11.	Animals in the Neighbourhood	✓	✓		✓	✗	✓	
12.	Water	✓	✓			✗	✓	✗
12a.	Air	✓	✓		✗	✓	✓	✓

		1	2	3	4	5	6	7
13.	Our District & State	✓	✓		✓	✓	✓	✓
	- Physical features	✓	✓		✓	✓	✓	✓
	- Life of People	✓	✓		✓	✓	✓	✓
	- Crops	✓	✓		✓	✓ history of	✓	✓
	- Occupations	✓	✓		✓	✓ Meghalaya &	✓	✓
	- Transport & Communication	✓	✓		✓	✓ National Fastival	✓	✓
	- Civic amenities	✓	✓		national holiday ✓	✓	✓	✓ National fastival ✓
14.	Our Haritage-Early Man	✓	✓	✗	✗	✗	✓	✓
15.	Our Country - India	✓	✓	✗	✓	✗	✓	✓
	- physical features	✓	✓	✗	✓	✗	✗	✓
	- climate	✓	✓	✗	✓	✗	✗	✓
	- crops	✓	✓	✗	✓	✗	✗	✓
	- occupations	✓	✓	✗	✓	✗	✗	✓
	- means of transport & communication	✓	✓	✗	✓	✗	✓	✓
	- culture	✓	✓	✗	✓	✗	✗	✓
	- art & architecture	✓	✓	✗	✗	✗	✗	✓
	- Govt./ State/Local/ central	✓	✓	✗	✓	✓ Local only	✗	✓
15b.	Our Country & World							
	- longitude - latitude	✗	✗	✗	✗		✗	✗
	- map, globe	✓	✓	✓	✓		✓	✓
	- continents, *oceans*	✓	✓	✓	✓		✗	✓

		1	2	3	4	5	6	7
16.	Means of Transport and communication in the world.	✓	✗	✓	✗		✓	✓
17.	Understanding the Fast changing world	✓	✗	✓	✗		✓	✗
18.	Major World Problems, United Nations, Non-Aligned Movement	✓	✗	✓	✗		✓	✓
19.	History of India's Freedom Movement	✓	✓	✓	✓		✗	✗
20.	Common Core Components	✓	✗	✗	✗	✗	✗	✗

Environmental Studies [illegible]: II . - Content

S.No.	Content/Unit Broad Areas	Delhi 1	Karnataka 2	Kerala 3	Maharashtra 4	Meghalaya 5	Rajasthan 6	U.P. 7
I	Living Things							
	- Living and non-living things	✓	✓	✓	✓	✓	✓	✓
	- Charecteristics of living things	✓	✓	✓	✓	✓	✓	✓
	- Plant its part and function and uses	✓	✓	✓	✓	✓	✓	✓
	- Animals variety, structures and uses	✓	✓	✓	✓	✓	✓	✓
	- Adaptation of plants and animals their conservation	✓	✓	✓	✓	✓	✓	✓
	- Deforestation its effect and material parts and sanctuaries	✓	✓	✓	✓	✓	✓	✓
II	Human Body Health-Hygiene							
	- Parts of human body-external its function use.	✓	✓	✓	✓	✓	✓	✓
	- Internal organs,organ system their function major	✓	×	×	×	×	×	✓
	- Food-its needs, variety of food, function of each food group and nutrient, food sanitation storage preservation etc.	✓	✓	✓	✓	✓	✓	✓
	- Balanced diet, common deficiency diseasses their signs and prevention	✓	✓	✓	✓	✓	✓	✓

		1	2	3	4	5	6	7
	- Management of waste water and waste disposal	✓	✓	✓	✓	✓	✓	✓
	- communicate diseas water, air, insect borne diseases their cause and simple preventive measures including ORS and diarhneoal manegement	✓	✓	✓	✓	✓	✓	✓
III	Material and their Properties							
	- Variety of materials, distinction between objects & materials.	✓	✓	✓	✓	✓	✓	✓
	- Solids liquid gases their properties states of matter its interchangeability	✓	✓	✓	✓	✓	✓	✓
	- Water as solrantsolution, matter is made up of small particles properties of matter.	✓	✓	✓	✓	✓	✓	✓
	- Solids can be dissolved in liquid filteration, decantation evaperation, stalization	✓	✓	✓	✓	✓	✓	✓
IV	Weather and Crops Seasons							
	- sun plays an important part in the changes of weather	✓	✓	✓	✓	✓	✓	✓
	- role of water in weather changes water cycles; its effect rain, drw, hail, fog, frost, snow	✓	✓	✓	✓	✓	✓	✓
	- weather effects crops, our lifes,	✓	✓	✓	✓	✓	✓	✓

		1	2	3	4	5	6	7
	- seasons-its effect on our life, plants and animals	✓	✓	✓	✓	✓	✓	✓
V.	Soil and Crops							
	- soils it type-structure and function of caly, loam and sandy soil	✓	✓	✓	✓	✓	✓	✓
	- different crops grow in different types of soil-soil fertility	✓	✓	✓	✓	✓	✓	✓
	- modern methods of agriculture (simple ideas) including crop protection, crop storage	✓	✗	✗	✗	✗	✗	✗
VI	Force Work and Energy							
	- Force and push or pull effect on application of force on a body (simple examples of daily life) Energy, (only operational definition), its different kinds, its sources interconversion, sum as prime source, alternate source of energy, need to conserve energy,	✓	✓	✓	✓	✓	✓	✓
	- Work-operational definition, Simple machines	✓	✗	✗	✗	✗	✗	✗

		1	2	3	4	5	6	7
VII	Soil, Erosion and Conservation top soil-its formation and nature soil erosion its causes, effect and warp to prevent soil erosion	✓	✓	✓	✓	✓	✓	✓
VIII	Air its component main property/uses of oxygen, corbondioxide and hitrogen water vapour - Uses of Air - An pollution and how to prevent it.	✓	✓	✓	✓	✓	✓	✓
IX.	The Sky and the Earth							
	- Sun, moon stars, constellation (Big dipper, orion	✓	✓	✓	✓	✓	✓	✓
	- Solar system, planets, sall state Uite	✓	✓	✓	✓	✓	✓	✓
	- Artificial satelite - Rohini, Arya bhatt	✓	×	×	×	×	×	×
	- transparent, trans lucent and opaque objects.	✓	✓	✓	✓	✓	✓	✓
	- Shadow formation it depends on kind of object and its size, source of light and distance between the source and the object	✓	✓	✓	✓	✓	✓	✓
	- Causes and formation of solar and lunar eclipse	✓	✓	✓	✓	✓	✓	✓

		1	2	3	4	5	6	7
X	Accidents Can be prevented							
	- situation which may lead to accidents - how to prevent	×	×	×	×	×	×	×
	- accidental fires, ways to fight it	×	×	×	×	×	×	×
	- road safety rules	✓	✓	✓	✓	✓	✓	✓
	- simple first aid measures	✓	✓	✓	✓	✓	✓	✓
XI	Man Science & Environment							
	Early stages of human civilization man lived in harmony with nature	✓	✓	✓	✓	✓	✓	✓
	- causes of over exploitation of nature, natural resources and its effects sollution etc.	✓	✓	✓	✓	✓	✓	✓
	- Renewable and non-renewable resources need to preserve and protact resources, various steps for better tomorrow.	×	×	×	×	×	×	×

Transactional Strategies - Environmental Studies I & II .

		Approach	Techniques			
A.	National Level	Child-Centred activity-based	Experimentation Basic Science Process 1	Field Visits 2	Role Play 3	Group/Individual assignments 4
1.	Delhi	✓	Not specified			
2.	Karnataka	activity based	✓	✓		Discussion
3.	Kerala	✓	✓	✓	✓	Dramatisation ✓
4.	Maharashtra	✓		✓	✓	
5.	Meghalaya	✓		✓	✓	
6.	Rajasthan	✓ Competency based	✓			
7.	Uttar Pradesh	✓		✓		

Teaching Through Environment· U.P., Meghalaya, Maharashtra, Kerala

Evaluation Techniques - Environmental Studies I & II

S.No.		Approach	Teachniques					
A.	National Level	Continuous Comprehension	Diagnostic Test and remedial Teaching 1	Observation 2	Tests oral/written 3	Performance tests based 4	Teachers records 5	Check-list 6
1.	Delhi		Not specified					
2.	Karnataka		only grading scheme indicated					
3.	Kerala	✓			✓	✓	✓	✓
4.	Maharashtra		Diagnostic Testing, remedial work, grading		✓			
5.	Meghalaya	✓ Competency based	✓		✓		✓	
6.	Rajasthan	✓ Competency based			✓	✓		
7.	Uttar Pradesh				✓	✓	✓	✓

APPENDIX - V

Basic Learning Needs - Work Experience

S.No.	Minimum Levels of Learning	Delhi 1	Karnataka 2	Kerala 3	Maharashtra 4	Meghalaya 5	Rajasthan 6	U P 7
1.	be familiar with and aware of various work situation, elementary processes of work/ productive activities and problems existing in the community/environment.	✓	✓	✓	✓	✓	✓	✗
2.	make small repairs, fix things decorate, beautify the surroundings.	✗	✓	✗	✓	✗		✗
3.	handle various simple tools required for making small articles of day-to-day use, from locally available materals, tools and equipment required for tasks such as cutting, pasting, digging, sowing, watering, etc.	✓	✓	✓	✓	✓	✓	✗
4.	maintain a kit of tools and equipment required for making small repairs/things in home and school	✓		✗	✓	✓	✓	

		1	2	3	4	5	6	7
5.	appreciate manual work and have regard for those workers in the community who produce goods and/or provide useful services to the community	✓	✓	✓	✓	✓	✓	✓
6.	perform small tasks assigned or undertaken with accuracy and precision.	✓	✓	✓	✓	✓	✓	X
7.	develop values such as regularity, punctuality, cooperation, comradeship, perseverance and honesty	✓	X	✓	✓	✓	✓	✓

ˈork Experience - Content

S.No.	National	Delhi 1	Karnataka 2	Kerala 3	Maharashtra 4	Meghalaya 5	Rajasthan 6	U.P. 7
1.	Various work situation sanitarity	✓	✓	✓		✓	✓	✗
2.	Tools & Materials	✓	✓	✓	✓	✓	✓	✓
3.	Service Centres	✓	✓	✗	✓	✓		✗
4	Local raw materials + its sources	✓	✓	✗	✓	✓	✗	✓
5.	Scientific Principles and Processes	✓	✗	✗		✗	✓	✓
6.	Maintenance of tools cleanliness of place/ of work	✓	✗	✓		✗	✓	✓
7.	Health & Hygiene	✓ Food, Shelter clothing recreation	✓	✓	✓	Cleanliness	✓	✓
8.	Common Core Components	✓(P Env) ✓(N.I.)	✗	✗		✗	✗	[illegible]

Work Experience - Transactional Strategies

A.	National Level	Thematic Approach 1	Processes based development 2	Child Centred Activity 3	Visit to work situation 4
1.	Delhi	Project Approach		Self identification of relevant activities	✗
2.	Karnataka			✓	✓
3.	Kerala	Not Specifics indicated		Activity based	
4.	Maharashtra	Project Approach	✓	✓	✓
5.	Meghalaya		Problem solving through discussion & observation expriment	✓	✓
6.	Rajasthan		✓	✓	✓
7.	Uttar Pradesh		Development of Sc. Process Skill	✓	✓

Evaluation Techniques

		Approach	Techniques				
A.	National Level	Comprehensive Continous Record	Observation 1	Checklist 2	Oral Test/ Written Test 3	Opionionnaire 4	Record keeping 5
1.	Delhi	✓	No techniques indicated except self record keeping by pupils & teachers				✓
2.	Karnataka	Terminal Tests					
3.	Kerala	Not indicated					
4.	Maharashtra	Diagnostic Testing is recommended			written but not totally		Not indicated
5.	Meghalaya	Performance based evaluation	✓		✓		✓
6.	Rajasthan						✗
7.	Uttar Pradesh	No indication comprehensive continuous evaluation. No guidelines	✓	✓	✓	✗	✗

APPENDIX - VI

Basic Learning Needs - Art Education

S.No.	Minimum Levels of Learning	Delhi 1	Karnataka 2	Kerala 3	Maharashtra 4	Meghalaya 5	Rajasthan 6	U P 7
1.	show willingness coerceive understand and appreciate the artistic expressions existing in the community and environment.	Learning out comes not clearly stated	✓		✗	✓	✗	✓
2.	appreciate various forms of folk arts, music, dance and drama, or those rendered by others; express freely through simple forms of arts-plastic and performing ones.	✓	✓	✓	✓	✓	✓	✓
3.	participate in performing arts through simple forms such as rhythmic activities, role plays, folk dance, roles in plays, singing songs, especially those which help in developing patriotism, national identity and integration.	✓	✓	✓	✓	(Creative Expression) Subject area ✓	Music role play ✓	only music ✓
4.	manipulate several kinds of materials, especially waste materials, to create a variety of forms of things-two and three demensional ones.	✗	✗	✓	✗	✓		✗

		1	2	3	4	5	6	7
5.	appreciate art and craft objects prepared/produced by the local artisans and artists.	X	✓ (theatre)	✓	X	✓	X	X
6.	develop pride for the Indian cultural heritage reflected in arts and crafts.	X	X	X	X	X	X	X
7.	develop ability to discover and identify prefereble means for self-expression.	X	X	X	X	X	X	X
8.	develop awareness of aesthetic element in traditional arts and love for beauty in nature.	X	X	X	X	X	X	X

Content - Art Education

S.No.	Content National	Delhi 1	Karnataka 2	Kerala 3	Maharashtra 4	Meghalaya 5	Rajasthan 6	U.P. 7
— 1.	Drawing Painting	✓	✓	✓	✓	✓	✓	✓
2.	College	✓	✓	✓	✓	✓	✓	✓
3.	Clay modeling	✓	✓	X	✓	✓	✓	✓
4.	Construction	✓	✓	X	✓	✓	✓	X
5.	Music (Group song, (anther folk songs etc.	✓	✓	✓	✓	✓	✓	✓
6.	Dance	✓	✓	✓	✓	✓	X	X
7.	Drama	✓	(Mimiery)	(Mimiery)	✓	✓	✓	X
8.	Exhibition	✓	✓	X	✓	✓	X	✓
9.	Decoration (Making use of waste other materials)	✓	✓	X	✓	✓	X	✓
10.	Printing	✓	✓	X	✓	✓	X	X
11.	Common Core Components	X	X	X	X	X	X	X

Transactional Strategies - Art Education

S.No.		Child Centred Approach	Individual/Group Activities
A.	National level	Not specified	-
1.	Delhi	Not specified	-
2.	Karnataka	Child Centred, Process Oriented, Activity based	Activities based - local original form
3.	Kerala	Activities closer to local folk, art, craft & theatre	
4.	Maharashtra	Child Centred activity based	Observation, experimentation, Project approach, play-way
5.	Meghalaya		Group and individual activities internal
6.	Rajasthan	Child Centred activity based	Play-way activity, free expression of each pupil visit to Museum Mela and other recreational Centres
7.	Uttar Pradesh	Child Centred Activity based	Use of local resources through group & individual work

Basic Learning Needs - Evaluation Techniques - Art Education

S.No.				
A.	National Level	Individual evaluation	No. rigid system	individual observation by teacher
1.	Delhi	- do -		
2.	Karnataka	Inductive and deductive	Grading (terminal test)	
3.	Kerala	Not specified	-	-
4.	Maharashtra	Not specified	-	-
5.	Meghalaya		-	-
6.	Rajasthan			Individual observation by teacher weightage to different areas given for classes III-V
7.	Uttar Pradesh			Observation of individual

APPENDIX VII A

Basic Learning Needs - Health Education

S.No.	Basic Learning outcomes	Delhi 1	Karnataka Class I-IV 2	Kerala Class V 3	Maharashtra 4	Meghalaya 5	Rajasthan 6	U P 7
1.	Identifies parts of the human body as seen externally describes their function including sense organs.	✓	✓	✓	✓ (in EVS)	✓ (in EVS)	✓	
2.	Acquires knowledge of major internal organ and organ systems			✗	✓	✗	✓	
3.	(Elementary ideas of digestive circulatory, respiratory, skeletal and nervous system).							
4.	Takes care of ones own body follows regular habits of eating, sleeping, bowel movement, rest and exercise.		✓		✓		✓	
5.	Follows proper posture for standing, sitting etc.							

		1	2	3	4	5	6	7
6.	Develops habits of keeping oneself clean and ones surrounding clean	✓	✓	✓	✓	✓	✓	
7.	Identifies locally available food stuff, major food groups, nutrients and their function:	✓	✓	✓	✓	✓	✓	
8.	Realizes the need taking food from all major food groups to develop the concept of balanced diet.	✗	✗	✗	✗	✗	✓	
9.	Detects the signs and symptoms of major deficiency diseases such as Protien - Calorie Malnutrition (PCM), night blindness, lodine deficiences etc and knows how to prevent these.	✗	✗	✗	✗	✗	✓	
10.	Select right kind and type of food within limited purchasing power which can help prevent deficiency diseases.	✗	✗	✗	✗	✗	✗	
11.	Adopts proper methods of cooking food to avoid wastage of nutrients			✓	✓	✗	✓	

		1	2	3	4	5	6	7
12.	Handles safely the water used for cooking and drinking and knows simple but effective method for purifying the water to make it safe.			✓	✓	✗	✓	
13.	Disposed of waste water and garbage properly.			✓	✓	✗	✓	
14.	Distinguish between communicable and non-communicable diseases.			✓	✓	✗	✓	
15.	Groups the communicable diseases into food and water borne diseases, air borne diseases and insert borne diseases.			✓	✗	✗	✓	
16.	Take steps to prevent spread of communicable diseases and takes action to get himself/herself immunised against such diseases and also motivate the parents to get their children immunized.			✓	✓	✓	✓	
17.	Practises desirable social behaviour and good manners.			✗	✗	✓	✓	

		1	2	3	4	5	6	7
18.	Interprets the various signs and symbols of road traffic and observes the road safety rules.		✓			✓	✓	
19.	Takes steps to prevent accidents and knows and follows simple safety rules to prevent cuts, wounds, burns and falls.		✓	✓	✓	✓	✗	
20.	Applies simple first aid in case of minor accidents such as cuts, wounds and minor burn injury etc.		✓	✓	✓	✓	✓	

Basic Learning Needs - Content

Health Education

S.No.	National Level	Delhi 1	Karnataka 2	Kerala only class V 3	Maharashtra 4	Meghalaya no H.E class I-IV 5	Rajasthan 6	U.P. 7
1.	Personal Hygiene and appearance		✓	✓	✓	✓	✓	✓
2.	Environmental sanitation - cleanliness of school, class, home - Garbage disposal - Disposal of solid wastes		✓	✓	✓	✗	✓	✓
3.	Care of the Body - body parts its function external internal - proper position for sitting, standing, reading etc. Rest, sleep, ecercise		✓	✓	✓	✓	✓	✓
4.	Food - food sanitation - Major food groups - Major nutrient their functions - Proper eating habit - food sanitation - Deficence diseases - cooking, storage, preservation etc.	✓	✓ ✗	✗ ✗	✓ ✗	✗ ✗	✓ ✗	✓ ✗

		1	2	3	4	5	6	7
5.	Water-safe water-Purification - waste water disposal	✓	✓	✓	✓	✗	✓	
6.	Air - Polution, Ventilation	✓	✓	✗	✓	✗	✗	
7.	Diseases and their function Air borne diseases food and water borne diseases Insect borne disease.		✓	✓	✓	✓	✓	
8.	Immunization	✓	✓	✗	✓	✗		
9.	Consume Education - Alchohol & smoking - Self medication		✓	✓	✗	✗	✗	
10.	Safety and first Aid	✓	✓	✗	✓	✓	✓	
11.	Mental health	✗	✗	✗	✗	✗	✗	

Transactoral Strategies

Transactoral Strategies

Health Education

S.No.		Approach	Strategies & Techniques
A.	National Level	Child centred activity based	Group activity, action songs, teachers observation of deviation for health, Activity/campagn in the communits, visit, health exhibition, heathcode, role play
1.	Delhi	Not specified	Not specified
2.	Karnataka	Child centred, activity based class/group	group activity, visit to health centre, film show/talks, use of community, resources, role play yoga etc
3.	Kerala	Not specified	
4.	Maharashtra	Child centred emphasis on process	Not specified
5.	Maghalaya	Not specified	Not specified
6.	Rajasthan	Child centred activity based	Project work, story telling group activity, health exhibition etc, Dramatization.
7.	Uttar Pradesh		

Evaluation Techniques - Health Education

S.No.	Approach		Tools/Techniques
A.	National		
	Continuous comprehensive evaluation Health code its observation by all children.		Oral/performance based tests, Teachers Observation, clerk list, commulative health record, Paper periodical test.
1.	Delhi	Not specified	--
2.	Karnataka	Continuous comprehensive evaluation record on 3 point scale	
3.	Kerala	Continuous comprehensive evaluation periodic list	Observation, check list, Commulative records Practical examination oral/written tests
4.	Maharashtra	Diagnostic listing	Tools not specified except oral/written test
5.	Meghalaya	Not specified	
6.	Rajasthan	Continous comprehensive Education	Observation by teacher, Check list, rating scale interview, anecdotal record, oral/written test
7.	Uttar Pradesh	Comprehensive Evaluation	

APPENDIX VII B

Basic Learning Needs - Physical Education

S.No.	Minimum Levels of Learning	Delhi 1	Karnataka 2	Kerala 3	Maharashtra 4	Meghalaya 5	Rajasthan 6	U P. 7
1.	develop proper use of the body, i.e., control and coordinate various parts and big and small muscles of the body for facile locomotion and acquisition of playing skills.	✗	✓	✓	✓	✓	✓	✓
2.	develop strength, stamina, speed, balance, coordination endurance and grace appropriate to his/her age-group.	✓	✓	✓	✓	✓	✓	✗
3.	participate in all games as a member	✗	Participation only	✗	✗	✓	✓	Participation only
4.	participate in all sports events as an individual but acquire proficiency in any two events of his/her choice.	✗	Participation only	✗	✗	✓	✓	Participation only
5.	know and understand the India and International games and sports so that he/she is able to enjoy watching them.	✗	✓	✗	recreation	✓	✗	✗
6.	develop values such as team spirit, cooperation, healthy competitiveness, tolerance, etc. leadersip.	✓	✓	✓	✓	✓	✗	✓

Physical Education - Content

S.No.	Content	Delhi 1	Karnataka 2	Kerala 3	Maharashtra 4	Meghalaya 5	Rasjathan 6	U.P. 7
1.	Free Movement	✓	✓		✓	X	✓	✓
2.	Imitation & Mimicry	✓	✓		✓	X	✓	✓
3.	Small Area/Minor Games	✓	✓		✓	X	✓	✓
4.	Rhythmics	✓	✓		✓	X	✓	✓
5	Combatives	✓	X		✓	X	X	X
6.	Lead up Games	✓	✓		✓	✓	✓	X
7.	Gymnastics	✓	X		✓	X	✓	✓
8.	Track and Field Sports	✓	X		✓	X	X	✓
9	Team Games	X	X		✓	✓	✓	X
10.	Yogasna	✓	✓		✓	X	✓	✓
11.	Acquatics	✓	X		✓	X	✓	X

Transactional Strategies - Physical Education

S.No.		
A.	National level	individual/group activities
1.	Delhi	✓
2.	Karnataka	not specified
3.	Kerala	not specified
4.	Maharashtra	not specified
5.	Meghalaya	not specified
6.	Rajasthan	not specified
7.	Uttar Pradesh	marks scheme indicated

Evaluation Techniques - Physical Education

S.No.	Approach		Techniques				
A.	National Level	Continuous	Observation 1	Checklist 2	Oral/Written 3	Rating Scale 4	Records 5
1.	Delhi	not specified					
2.	Karnataka	✓					✓
3.	Kerala	not specified					
4.	Maharashtra	not specified					
5.	Meghalaya	marks scheme indicated					
6.	Rajasthan	✓	✓	✓	✓	✓	✓
7.	Uttar Pradesh		✓		✓		

APPENDIX VIII (A)

Innovative Programmes as Forerunners

1. Nutrition Health Education & Environmental Sanitation (NHEES)

Rationale

The present status and future well being of a nation is reflected in the nutritional and health status of its children. (NCERT 1989). To improve the health status it is essential that preventive measures are adopted which would amply provide children with basic survival skills and at the same time improve their physical, intellectual growth to enable enhancement of learning skills in other areas. Ignorance is one single factor responsible for rampant infant mortality (IMR). The vicious cycle of malnutrition, infection insanitation and repeated infection resulting in further malnutrition is too familiar a picture. This situaion can be improved by empowering children and through them their parents, with knowledge, understanding, skills and attitudes in our country, towards nutrition, health and environmental sanitation.

Objectives

The main objectives of the project were:

- To develop suitable instructional packages for children of primary schools in the areas of nutrition, health and environmental sanitation, which are regarded as basic survival skills and learning needs of the children.

- To develop strategies for imparting messages related to nutrition, health and environmental sanitation to-out-of school population through a community contact programme so as to generate awareness, develop habits and practices to promote healthful life style.

The objectives of the project, therefore were twofold viz., intervention programme within the formal primary school and intervention with members of the community so that messages learnt at school can find conducive atmosphere at home to flourish.

Coverage

The project was initiated in two phases. In the pilot phase (1975-80) 5 regional contres were established in 5 regions of India. The implementation of pilot phase was evaluated by the Nutrition Foundation of India (NFI) in 1981. During 1981-89 the project was extended to nine States i.e. Andhra Pradesh, Assam, Bihar, Haryana, Maharashtra, Orissa, Rajasthan, U.P. and Mizoram. In all 810 primary schools participated in the project.

Achievement

The instructional materials both for pupils and teachers were developed in different regional languages and tried out in the project location. The primary school teachers, teacher educators were trained. The most significant aspects of the project was the Community Contact Programme (CCP) through which health, nutrition and

environmental sanitation messages were disseminated to the community through a variety of means such as health exhibition, fair, dramatization and various other means of communication, such as, community meetings and door to door contact were also resorted to.

A large number of pamphlets, charts and brochures on relevant health problems, topics were distributed to the households. The tried out curriculum materials including supplementary readers and teachers' guides and desirable teaching strategies have been infused into the State System of primary education. The curricula in nutrition, health and environmental sanitation have been developed for the pre-service and in-service teacher education. Several States have revised their teacher education curricula to include these components.

Impact Study

On completion of the pilot phase of the project an interim evaluation was carried out. After the completion of expansion phase (1981-89) an indepth impact Study of the Project was undertaken to ascertain the achievements, successes and failures of the project. The impact was studied on two major aspects; viz. achievement of pupils and attainment of the community members. Altogether, achievement data of about 33,000 primary school children and 16,000 households from project states have been obtained. The report on the Impact Study entitled: Project Nutrition, Health Education and Environmental Sanitation - An Impact Study (Bhattacharya, NCERT, 1991) have shown that the

intervention was extremely positive both with regard to the attainment of the community members and achievement of primary school children in respect of knowledge, understanding, application and attitudes towards nutrition, health and environmental sanitation.

2. Primary Education Curriculum Renewal Project (PECR)

Rationale

This project was taken up to develop innovative curricula which can meet educational needs of diverse groups of children, especially, the children belonging to disadvantaged sections of the society. This curriculum renewal programme was characterised by decentalization of curriculum development. In aimed at developing expertise in curriculum development at local level.

Objectives

The main objectives of the Project were:

- To adjust the curriculum qualitatively to the life-style of the child and the socio-economic opportunities likely to be available, thereby making education interesting in schools and thus increasing their holding power.
- To make the existing primary education more meaningful by infusing gradually into the elementary school curriculum innovative ideas tested in the experimental educational programme in the project schools.

Coverage

First phase (1975-80) of the project was initiated in 30 schools. In 1979 the project was expanded to all the states and Union Territories except Arunachal Pradesh. In the second phase, (1981-89) 100 more schools were added to cover various socio-economic, geographical and regional variations in the States/Uts. During 1980-84 about 2480 primary schools with a population of about 4 lakh children were involved in the experiment. About 1100 teachers in the primary schools were engaged in experimenting the innovative ideas developed in the renewed curricula.

Achievement

The innovative ideas developed and tested under this project were accepted for formulating NPE 86. A variety of competency based, locally relevant, specific learning and teaching materials were developed by each State. The most significat achievement of this project is identification of most essential learning competencies to be achieved at the end of primary stage contained in the document - Minimum Learning Continuum (MLC) (NCERT, 1981) which formed the basis for development of Minimum Levels of Learning (MLL) at the national level. The Minimum Learning Continuum was used for developing competency based curriculum and evaluation tools under the project PECR. The terminal competencies listed under this document provided yardstick to measure levels of learning for both formal and non-formal education.

A nation wide study of popil achievement in areas of language, mathematics and environmental studies for pupils of classes I-V was undertaken under this project to assess the impact of the project. The interim research report has shown significant difference in achievement level of the pupils in all these areas.

3. Comprehensive Access to Primary Education (CAPE)

Rationale

The major focus of the project was on out of school children from disadvantaged population, scheduled castes, scheduled tribes, backward classes and girls. It also catered to the needs of the slow learners.

Objectives

The main objectives of the project were:

- To develop a non-formal system of education and increase the number of children participating in non-formal education activities as alternative to formal schooling.
- To evolve flexible, problem centred and work based decentralized curricula and learning materials relevant to the needs of life situations of diverse groups of children.

Coverage

It was launched in 10 states and 3 UTs in 1979-80 and was extended to 17 states. The first phase was preparation of learning episodes/material and its publication. The second phase was the establishment/adoption of learning centres.

Achievement

A large number of relevance based problem centred and work based learning episodes/materials were developed by participatory states as well as NCERT. Training cum material production mode was introduced in the curriculum of the erstwhile Teacher Training Institutes.

APPENDIX VIII (B)

Current Innovative Programme

1. Early Childhood Education Project (ECE) Children's Media Laboratory (CML)

Rationale

The early years of a young child are very important for his/her physical well being; emotional growth and development; and also for intellectual development. Early stimulation provides the growing child with the experiences for motor development, hand eye coordination and manual dexterity . It is matter of controversy that a well spent preschool year leaves on indelible mark on the future abilities of a child. It is also true that mishandling and emotional trauma have a detrimental effect on the development in later years. Thus care and education in early childhood is crucial for enhancing achievement of basic learning.

The project on Early Childhood Education was taken up to develop well sequenced and entertaining materials for young children.

Objectives (CML)

- To develop prototypes of inexpensive materials of educational and entertainment value for children.
- To investigate the comparative effectiveness of educational media directly related to development of the young child.

- To develop at the State level, expertise in the use of traditional toys and games and in the development of new play materials.
- To develop training courses in early childhood education, and
- To serve as clearing house for latest technical developments, both national and international.

The project started as Children's Media Laboratory (CML) in early 70's. In 1982 the project was expanded to Early Childhood Education (ECE) with the major objective of strengthening and supporting state level activities in the area of early childhood education.

Objectives (ECE)

- To assist state departments of education to set up ECE Cells which will ultimately serve as state level resource centres.
- To develop basic learning and play materials for pre-school children and instructional materials for teachers.
- To train ECE personnel at the state level to act as resource persons.

Coverage

At present the project is in operation in 12 States. On an overage 65 ECE Centres have been established in each state either at the block level coverage or district level coverage.

Achievement

The project is being implemented in three phases. In the first phase (1981-85) focus was on development of state level expertise and development of material for children and teachers. In the second phase (1985-90), strengthening of ECE Centres, forging linkages with the ICDS and voluntary agencies through training and dissemination of materials. In the third phase (1990-95) further strengthening of this aspect, close intervention in the ICDS clusters, large scale training of personnel, and preparation of region specific materials in regional languages, for children, teachers and trainers are the thrust areas.

A variety of materials have been developed under the project. These are: games, books for children, instructional materials for teachers, pamphlets for parents, picture cards, conversation charts and several books and research publications. The non-print materials include audio cassettes, video and tape slide presentations etc.

Innovative Transactional Approaches

Within the overall context of Early Childhood Care and Education certain innovative transactional approaches have been taken up. These are:

- Home-based programme for early childhood stimulation.
- Child-to-Child programme
- School readiness programme. Play and Activity approach in classes 1 and 2.
- Summer enrichment programme
- Play with hospitalized children.

2. Project Integrated Education for the Disabled (PIED)

Rationale

Education for all children is the global as well as national commitment. Exclusion of children with special needs from general education and dropping of children with even mild special needs account for large number of children outside the primary schools. It was therefore felt that unless the general education system is made responsive to educational needs of all children, including children with special needs, the goal of education for all cannot be realised. The implication is that the schools have to be organised in a way that educational needs of all children can be met effectively.

Project Integrated Education for Disabled (PIED) was formulated to meet special needs of children with physical and intellectual disabilities, on the one hand, and make it responsive to educational needs of all children, on the other. The major goal of the project was to bring all disabled children to general schools as far as possible.

Objectives

The objectives spelled out in the project document have undergone a change in the light of the experiences of implementation of the project. The objectives are:

- To prepare the general educational system in demonstration sites to achieve the goal of education for all children including those with disabilities.
- To develop an attitude of acceptance for children with special needs in the classroom.
- To improve achievement of children including children with special needs in the demonstration site.
- To develop context specific modalities to achieve the objectives stated above.

Coverage

The project was launched in the six states (Madhya Pradesh, Maharashtra, Nagaland, Orissa, Rajasthan and Tamil Nadu) in the last quarter of 1987. It was extended to two more states (Haryana and Mizoram) in the last quarter of 1988. Two urban areas from the Municipal Corporation, Delhi and Municipal Corporation, Baroda were included in the project in 1990.

Salient Features

The salient features of the PIED design are as follows:

1. Stress on the development of capability in the general education system to meet individual needs of all children, including those arising from

physical and intellectual impairments, through staff development and organisational support to the general school system.

2. Microplanning following composite area approach to ensure educational provision for all children, taking education block as the unit of planning.

3. Development of context specific operational modalities in deverse contexts representing different terrains and population scattered in sparsely populated rural areas, and compact population in urban slums; different development levels; availability of support infrastructure facilities like health, welfare, child development labour etc.; and, the adaptability of the administrative and bureaucratic system of innovative change. Eight blocks, one in each of the states and one area in each of the project corporations, represent ten typical contexts.

4. The project areas have been selected in comparatively difficult contexts. The rural areas are at subdistrict levels and even urban slums are the difficult areas for education. The reason for selecting difficult contexts is simple. If workability of the design models can be demonstrated in difficult contexts, it is easier to convince administrators and practitioners that it is possible to take care of education of all children, including those with special needs, in the general education system.

The field demonstration in ten sites has provided experience to the participatory states and municipal corporations to plan and manage implementation of the Integrated Education of Disadvantaged Children (IEDC) scheme.

Achievements

In order to integrate disabled children into general schools it was essential to identify them. From 1988-92, 13,849 disabled children have been identified and mainstreamed. The specific achievements have been broadly given below:

(i) Teacher's competence has increased due to the three kinds/levels of training imparted. Their responsiveness has also increased towards children with special needs.

(ii) Educational toys have made learning concrete and enjoyable for both disabled and non disabled children.

(iii) Sociometric relationships have improved within the classroom situation.

(iv) Ranking in the achievement of disabled children has improved over a period of time.

(v) Learning and achievement has improved for both normal and disabled children.

(vi) Parent-teacher-child contact and understanding has in-creased and improved.

The focus in 1993 will be on curriculum adjustment and adaptation for the disabled as well as increasing community involvement and participation.

A detailed evaluative study of the PIED scheme is planned to be undertaken in 1993. This will provide an indepth analysis of the effects within the selected PIED blocks.

3. Multisite Action Research Project

Rationale

Education for all children is the cherished goal set by NPE-1986. The realisation of this goal will depend greatly on making teaching responsive to individual needs within the normal classroom setting. This can be accomplished by meeting the requirements of a wide diversity of educational needs specially of the so called disadvantaged groups. One such group is the "disabled". This project is an innovation within the broad framework in PIED.

Objectives

The Multisite Action Research Project was envisaged to meet the special needs of disabled children with diverse abilities within the general education system. It represents a complete model of teacher effectivenes in which teachers receive training in the use of different active learning

strategies, leading to the betterment of the disabled child's performance. It was designed specifically using resource pack based training stragetіes piloted by UNESCO with **two objectives** as its focus:

- Can teachers be helped to accommodate pupil diversity in teaching ?
- Can teacher education contribute to this process?

Coverage

A total number of 22 institutions comprising 9 District Institutes of Education and Training (DIETs), 3 Regional Colleges of Education (RCEs) and 3 schools formed the target group. The personnel involved were heads of institutions, teachers from schools and teacher educators from the colleges of education.

Salient Features

The training was based on the principles of:

* Active Learning
* Negotiation of Objectives
* Demonstration, feedback and practice
* Support.

Achievements

A mid-project review meeting highlighted the achievements made so far. They are detailed out below:

1. It was felt that the competencies acquired could be used in regular teaching of all subjects at all levels.

2. The competencies acquired, helped in:
   - handling large classes (70 - 80 children in each class)
   - identifying children with special needs in the classroom
   - enhancing learning, observational skills, and self evaluation.

3. Implementors of the different training strategies at different project sites felt that the cooperative learning, collaborative teaching, child to child help approaches were more beneficial within the general classroom setting, than the usual procedures.

4. Cooperative learning has been accepted by both teachers and students, and has helped in improving the academic performance of all children.

5. Children indicated their satisfaction with the cooperative learning approach, as each one had an opportunity to speak during the teaching-learning process.

6. Students are developing a positive attitude towards learning. This will be reflected in their better learning, which is going to be measured at the end of the treatment in March 1993.

7. One of the schools has managed to successfully integrate blind children into mainstream of education.

8. Sharing of experiences (discussion of problems and strategies) led to the betterment of teachers since it promoted the exchange of ideas and incorporation of new ones.

Problems

1. Initially the prolonged prescriptive curriculum and rigid examination orientation pulled the teachers in an opposite direction.

2. The administrators who were least exposed to such innovative ideas had little time and patience.

3. Innovative programmes like these did not fit into the rigid set of fanancial rules and procedures.

4. The language level of the trainees varied in regional and international programmes.

5. Sometimes the pedagogical knowledge of trainers and teachers turned out to be lower than anticipated. Thus instructions in the course leaders guide and in the material needed elaboration.

6. Technical resource faculty support could not be provided to the project teams because of the commitment to other projects.

7. The furniture (heavy or fixed) in some classrooms was not suited to the variety of learning experiences.

Final results of the project outcomes will be available by the middle of 1993.

4. Area-Intensive Education for Human Resource Development (AIEP)

Rotionale

This was originally conceived as an 'Area Development' project based on area intensive approach to education linked to development. The project aims at providing the 'Basic Education' to all age groups in a community, especially population living in educationally underdeveloped, tribal and rural areas. The main focus is on the improvement of pre-primary, primary, non-formal and adult learning facilities in selected geographic areas, mobilization of community support and utilization of developmental inputs of the central and state Governments.

Objectives

Primary Objectives

- To design and try-out as a part of the strategy for implementation of the National Policy on Education a comprehensive Area-Intensive Education Project for Human Resource Development for all sections of the population in the selcted geographic areas specially in the context of 'Education For All'
- To achieve universal primary education in ways relevant to the life and development level of the target community.

- To establish complementarity in pre-school, formal and adult learning activities in the community preferably located in the same premises.

Related Objectives

- To develop and arrive at various methods of mobilising community's participation in educational programmes.
- To evaluate and make available the experiences of the project for incorporation into the long-term global education strategies.

Specific Objectives

- To provide Early Childhood Care and Education to all children (including those with disabilities) in the age group of 3-6 years in the area.
- To achieve by 1995 Universalisation of Primary Education for all children in the area, particularly girls and disabled children by providing access to formal and non-formal education facilities and their retention upto 11 years of age.
- To provide access to learning opportunities for illiterate/semi-literate, neo-literate adults in the age group 15-40 years.
- To develop innovative educational programmes, teaching and learning materials, teaching strategies and evaluation practices.
- To involve the community in planning and execution of educational and developmental activities.

Strategies

- Identification of educational and developmental needs of the community
- Development of implementation of micro-plans and programmes
- Intersectorial coordination at various levels
- Involving communities as co-partners at all stages of project planning and implementation
- Training of functionaries in the participating states.

The project is financially supported by UNICEF especially the programme and training component and supply items. The collaborative agencies are Government of India, State Governments and UNICEF. The implementing agencies are NCERT, SCERT's and UNICEF.

Achievement and Present Status

Activities concerning setting up and operationalising necessary project implementation machinery at various levels including Multi-Purpose Resource Centre (MPRC) at the block level, formation of coordination committees for effective interesctoral coordination at different levels and awareness building programmes were undertaken. Identification of educational and developmental needs through survey was completed and the teams at different levels were oriented on various aspects of the project. Micro-planning of

Related Objectives

- To weave the educational, developmental activities at various levels for speedier Human Resource Development.
- To develop and impart short-term training to teachers/animators and NFE and Adult Education Instructors, etc. to establish suitable monitoring and evaluation mechanisms for assessing changes in awareness, activities and behaviour of the community.

Coverage

The programme was initiated in one block each in six states and one union territory in 1987. In 1992, it was extended to seven more blocks in these states. At present, 1400 villages are implementing the project. The expansion is being attempted in a phased manner.

Salient Features

The salient features and special components of this project are:

- Area-Intensive Approach
- Convergence of activities and Resource Inputs
- Community participation in Decentralized planning and management.
- Flexibility
- Priorty to educationally backward areas and population sectors.

educational and developmental activities were undertaken in the villages and also micro-plans were synthesized as the block level plans. Education and Development Centres (EDCs) in all the villages strated functioning. In addition to enrolment drives and educational activities for different age-groups, activities relating to improvement in health, socio-economic status, status of women, community awareness were also undertaken as supporting strategies to realise the educational goals.

A very quick assessment of the impact of the project in a few states through the QAT (Quick Assessment Technique) excercise and the information received from the states reveal that there has been improvement in realising the goals of Universalisation of Primary Education, Adult Education, Early Childhood Care and Education as well as improvement in socio-economic condition of the communities. It has also helped in establishing the complementarity among educational programmes for various age groups. It is also providing some models for micro-planning, intersectoral coordination and community participation. It is also providing replicable models of 'Basic Education' and 'Education For All'.

Some tools have been developed to keep systematic records of the target groups such as expectant mothers, infants, preschool children and primary school age-group children and out-of-school population, adult learners, etc. so that periodical review can be made. This will also help in achieving the physical targets in the villages. Mid-term reviews of the project activities are conducted and it is planned that towards the end of the project period summative evaluation of the project will be undertaken. Computerised Planning of Education (COPE) is going to be introduced in the AIEP blocks.

5. Operation Blackboard (OB)

Rationale

National Policy on Education, 1986 (revised in 1992) embodies the concept of National System of Education. Two main features of this policy are elimination of disparity in education system and quality improvement of education, especially primary education. Thus equal access to educational opportunity and at the same time ascertaining equal apportunity for success is the cornerstone of this National System of Education. One of the efforts to operationalise this was the recommendation for undertaking a centrally sponsored scheme, symbolically known as 'Operation Blackboard' (OB).

Objective

The main objective of the scheme is to provide essential facilities to each primary school in the country, which have been identified as

- provision of at least two reasonably large rooms (revised to three rooms, wherever the enrolment warrants, in Revised Policy Document 1992) with a deep verandah alongwith separate toilet facilities for boys and girls

- provision of at least two teachers (revised to three in 1992), as far as possible one of them a woman
- provision of essential teaching learning material including blackboards, maps, charts, toys and games, a small library and other relevant material.

Coverage

All the primary schools in the country were to be covered under the scheme in three phases of one year each starting from 1987. But due to unavoidable circumstances hundred percent targets could not be achieved in the specified period. By March 1992, 4.14 lakh (77%) schools in 5385 (84%) Community Development Blocks and 1142 (29%) Municipal Areas had been covered under the scheme.

The Revised National Policy on Education (1992) has recommended the continuation of the scheme to cover the remaining schools. The scope of the scheme also would be expanded to cover Upper Primary Schools during the 8th Five Year Plan.

Achievement

The document "Operation Blackboard - Essential Facilities at the Primary Stage: Norms and Specifications" - was printed by NCERT in December, 1988. This document provided the Guidelines to the state agencies for purchase of O.B. materials, identified as essential and also, for maintaining the quality level of items to be purchased.

As a fall out of the scheme, special orientation courses were also organized by the NCERT for State level key personnel and through them to various functionaries at the

state level including primary school teachers during 1989. The purpose was to familiarize the participants with the materials supplied under O.B. Scheme so as to enhance their utilization in the classroom interaction and thus help in enabling the pupils to achieve the laid down minimum levels of learning. A training package was also developed to orient the teachers. The package consists of:

a) Print material comprising (i) Awareness Package and (ii) Performance Package
b) Non-print materials comprising 15 video programmes dealing with use of different materials and a package of 203 coloured slides as support materials to the print materials.

The training package including both print and non-print materials are available in English and Hindi and have been disseminated to all States and Union Territories of the country.

Since the focus of the scheme is on enhancing the quality of pupil attainment, evaluative studies were conducted in selected blocks covered under the scheme to find out the impact. The findings of the studies have pointed to the need of orienting the teachers in the use of the teaching learning material supplied to schools. Hence undertaking of the Orientation Programmes of Primary School Teachers is another major programme under the scheme in the revised Programme of Action (1992). The programme is starting from 1993.

6. Bihar Education Project (BEP)

Background/Rationale

Bihar is one of the educationally backward states of India. At the primary school level, the enrolment ratios. particularly of girls are very low and the dropout rate is the highest in the country. Teacher absenteeism in remote rulral areas is a constant problem. Basic facilities are lacking in majority of primary schools in rural areas and these contribute, in a big way, to the non-existence of proper learning environment in schools. Inspite of the fact that there are large number of NFE Centres, a substantial number of habitations are not served by any educational facilities.

With a view to initiate the process to educational reconstruction and through it to bring about a social change, the State Government. started this project in collaboration with the Central Government.

Objectives

- Universalisation of Primary Education with a composite programme of access to primary education for all children upto 14 years of age; universal participation till they complete the primary stage through formal or non-formal education programme; and universal achievement at least of minimum levels of learning

- Drastic reduction in illiteracy, particularly the 15-35 age group, bringing the literacy level at least to 80%, ensuring that the levels of the 3 R's are functionally relvant.
- Modifications in the educational system to ensure equality and empowerment of women.
- Making necessary interventions to provide equal educational opportunities to adults and children belonging to the socially and economically lower strata of the society.
- Relating education to the working and living conditions of the people, thereby improving their ability to cope up with problems of livelihood, environment, and mother and child survival
- Laying special emphasis in all educational activities on science and environment and inculcation of sense of social justice.

Implementation Strategies

The implementation programme of the project aims at involvement of masses in the form of a movement having a missionary spirit and would include political parties, teachers, government departments, employers and trade unionists, voluntary agencies, institutions of secondary and higher education.

Elementary school teachers and NFE instructors will be the central figure in the successful implementation of the project. (Bihar has over 200,000 elementary school teachers and nearly 100,000 instructors in adult and NFE Centres). Orientation programmes of teachers in child-centred,

competency-based teaching learning processes and continuous evaluation have already been launched in some blocks of three districts where the project work has been started at the initial stage.

Voluntary agencies, research institutions and institutions connected with the media will be involved to help improve the quality. Some of these institutions will act as resource centres for training, development of material, management and research etc.

7. 'Shiksha Karmi' Project in Rajasthan

Introduction

This innovative project was initated in Jaipur district of Rajasthan in 1987 with financial assistance from SIDA (Swedish International Development Authority) and Government of Rajasthan in the ratio of 9:1. The project caters to a large segment of school age children who are unable to effectively participate in the formal primary schooling facility.

At the conceptual level, innovative component is the focus on the primary education in remote villages where formal primary school system connot be effectively implemented due various reasons, particularly, unwillingness of teachers from outside the community to live in such inaccessible areas.

Objective

- To provide primary education and cater to basic learning needs of out of school children, school dropouts, working children and girls who cannot attend day schools and also children who live in the inaccessible areas of desert and hilly regions of the state.

Coverage

The project is in operation in 60 'Panchayat Samities' in 22 blocks of the State. Under the programme 675 day schools and 1350 'prehar pathsahalas' are functioning, with enrolment of 55,000 children in the age group 6-14 years. The 'Prehar Pathshalas' (evening classes) are attended by 14000 children out of which 60% are girls.

Salient Features

- Substitution of primary school teachers by a team of two voluntary education workers - 'Shiksha Karmi' (Educational Worker) and hence the name of the project. These 'shiksha karmis' are local persons who are motivated to impart primary education. The minimum educational qualification of these volunteers is about eight years of education. He/she is selected by a special committee.
- Volunteers are provided with one month training followed by short-term orientations at regular intervals
- The programme is managed by 'Shiksha Karmi Board' in collaboration with the State Government. It is also assisted by an NGO - 'Sandhan' for motivation, planning and evaluation activities.
- The curriculum is flexible, relevant to the needs of the children. The instructional materials are also flexible and locally relevant.

- For encouraging enrolment and retention of girls in 'prehar pathshalas', old women have been employed on nominal remuneration to act as attendants to the girls and escort them to and from the 'pathshala'.

Impact

A study was conducted by a team to evaluate the achievements of children in the 'Shiksha Karmi' Project in nine blocks in Rajasthan. The villages in these blocks were randomized and 9 'Shiksha Karmi' schools and 9 Primary Schools were selected in the final sample. A series of individual and group tests were administered to these children. The results of the study revealed a clear difference in achievement of children from Shiksha Karmi Schools and regular primary schools.

8. Andhra Pradesh Primary Education Project (APPEP)

Introduction

Andhra Pradesh Primary Education Project has been taken up in the state of Andhra Pradesh with financial and academic asistance of ODA (Overseas Development Agency) in U.K. The first phase of the project was taken up during 1984-87 in 328 primary schools in 11 districts of the State. The second phase of the programme was initiated in 1989-90 and will last till 1995-96.

Objectives

- Providing some new primary school classrooms of improved quality
- Improving human resource by enhancing the quality of the work of teachers and suppervisors of primary schools.

Achievement

During the first phase besides the construction of a large number of classrooms, 795 teachers were trained through a series of in-service training programmes. The main thrust of these programmes was on orientation in activity based teaching and exposing the participatns to the latest techniques and methods of teaching and evaluation by providing opportunities for practical experiences in various activities.

34 Teachers' centres were also established during this period to enable the teachers to meet and have continuous exchange of their professional experiences with specific reference to activity-based teaching.

Impact

Evaluation of effectiveness of the activities of the project is an integral part of the programme. The review of the first phase indicated that

- the school buildings constructed under the project were highly appreciated in terms of improving the school environment as they had provided more space, storage facilities and ventilation
- the supply of consumable materials to project schools brought about favourable change in classroom practices
- the supply of Teachers' Handbooks enabled the teachers and supervisors to improve their competencies
- there was increse in the enrolment of children in most of the project schools
- there was steep decline in the drop-outs especially in the pilot schools

After the review, a bridging programme was undertaken during 1987-89 in order to consolidate the achievements of Phase-I and to plan for Phase-II of the project to cover the entire state by dovetailing it with the programmes of NPE-1986 of the Govt of India such as Operation Blackboard and DIETs. During this period the schools and Teachers' Centres were supplied with material and the meetings at Teachers' Centres were continued. In addition, the construction of 27 Teachers' Buildings was also taken up.

The second phase initiated in 1989-90 is also continuing with the two major components i.e. construction of classrooms and buildings of Teachers' Centres, and, human resource development for improvement of quality of primary education. It is expected to cover about 1,65,000 teachers working in 52,000 schools. By 1991-92, about 50,389 teachers had been trained.

Construction of 3393 classrooms and 1104 Teachers' Centres' buildings has also ben taken up. Till August 1992, 1909 classrooms and 633 Teachers' Centres buildings had been completed.

9. Lok Jumbish (Peoples' Movement)

Introduction

Rajasthan is the second largest State in India in terms of area, but has a very low literacy percentage. The percentage of enrolment of girls is also very low. The overall picture indicates that not more than 15% of girls and 25% of boys complete 8 years of education, with this dismal picture in the background various efforts have been initiated to meet the challenge of providing 'Education For All' by 2000 AD.

'Lok Jumbish' Project is one such effort. The name of the project consisting of two words, 'Lok' (People) 'Jumbish' (Movement), means movement for the people. The project places confidence in the people and has been conceived with the perception that people are capable of innovating new ways of learning, health care and economic development, provided proper directions are provided for inspiring them for undertaking the responsibilities as a group.

The agencies invoved in the implementation of this project are the State Govt., Central Govt. and the Swedish International Development Agency (SIDA)

Goals of the Project

The over all goal of the project is to achieve the target of 'Education For All' in the State by the year 2000 A.D. through mass mobilisation and participation of the people.

Objectives

The specific objectives of project are:

- universalisation of primary education in terms of access to primary education for all children up to 14 years of age; universal participation till they complete the primary stage through formal or non-formal education programmes; and universal achievement at least of minimum levels of learning;
- adult education through total literacy programmes (to be undertaken in the second phase);
- provision of opportunities to upgrade the education of all persons who are functionally literate and who have received primary education through formal or non-formal channels;
- creation of necessary structure and initiating processes which would empower women and make education a means for women's equality;
- making necessary interventions and creating circumstances for enabling the educationally

backward sections of the society to move towards equal participation in basic education; and

- improving the content and process of education to relate it to the environment, culture, working and living conditions of peole, thereby enhancing their ability to cope with problems they face in their day-to-day life.

Strategies

The main strategies of the programme are creation of a people's movement and to view education and an instrument for bringing about equality. The specific strategies envisaged are;

- Decentralization: Decentralized management and support process has been envisaged through creating awareness about the role and functions of Village Education Committees and their accountability to the villagers.
- Vesting the responsibilities of education with the Village Education Committees and involvement of NGOs at the operational level of the programme.
- Priority for Education of Girls/Women: Education of girls has been identified as a priority area because of low female literacy and with the conviction that education plays a key role in social and cultural emancipation of women and through them uplift of their families and society at large.

- Involvement of Teachers: The most important resource of the programme is the approximately 1,32,000 primary and upper primary school teachers whose services will be used for the successful implementation of the project.
- Training Training of all personnel involved in the implementation is a key feature. It is envisaged that personnel will be trained vis-a-vis the objectives in the implementation of project.
- Mission Mode: The proposed management of the project aims at adoption of mission mode for implementation i.e. involvement of entire community in the implementation.

Achievement

The project would be undertaken in two phases. The first phase, comprising two years will cover a limited number of blocks and will act as a preparatory stage. In this phase, concentration will be by and large on primary education. In the second phase the programme will be extended to all the blocks and would also include, Early Childhood Care and Education (ECCE) and adult education.

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